## RISK REPORT

2018

**PILLAR 3 2017** 



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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.

A cross-reference table between disclosures included in the Risk report and CRR and CRD4 requirements is included in chapter 12, on page 224.

# 1 KEY FIGURES

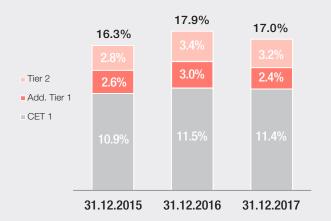
## In brief

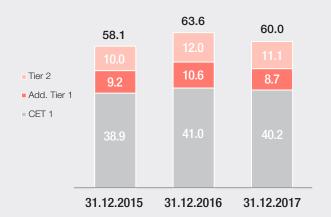
The Risk Report provides in-depth information on Societe Generale's approach and strategy for managing its equity capital and risks.

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 SOLVACY RATIOS(1)**

#### REGULATORY CAPITAL (IN EUR BN)(1)

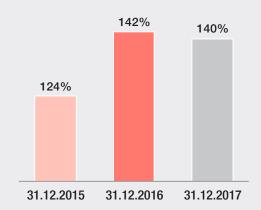




#### LEVERAGE RATIO(1) (2) (TIER1) (IN EUR BN)

## 4.2% 4.0% 31.12.2015 31.12.2016 31.12.2017

#### RATIO LCR(1)

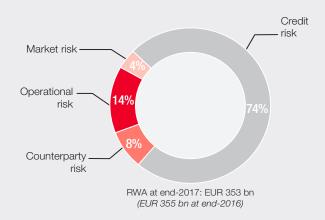


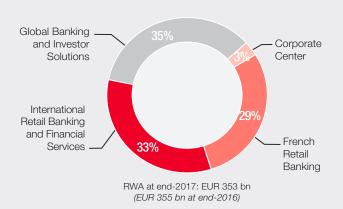
<sup>(1)</sup> Disclosed ratios are fully loaded, calculated according to CRR/CRD4 rules published on 26th June 2013, including the Danish compromise for Insurance.

<sup>(2)</sup> Fully loaded ratio calculated according to CRR rules published in October 2014 (Delegated Act).

#### **DISTRIBUTION OF RWA BY RISK TYPE**

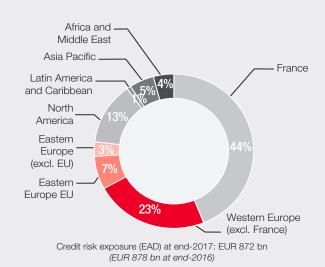
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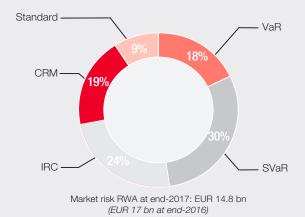




#### GEOGRAPHIC BREAKDOWN OF GROUP CREDIT RISK EXPOSURE (EAD)

#### **DISTRIBUTION OF MARKET RISK RWA BY RISK TYPE**





## 2

# GOVERNANCE AND RISK MANAGEMENT ORGANISATION

## In brief

This section describes Societe Generale's approach and strategy for managing its risks.

It describes how the risk management functions are organised, how they ensure their independence from the business divisions and how they promote a risk culture throughout the Group.

#### **ADEQUACY OF RISK MANAGEMENT ARRANGEMENTS**

In accordance with Regulation CRR 575/2013 of the European Parliament and of the Council dated 26 June 2013, this report, published under the responsibility of SG Senior Management, sets out the quantitative and qualitative information required on own funds and risk management within SG, to ensure transparency vis-à-vis 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

#### 2.1 RISK FACTORS

 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 (including oil), currency exchange rates or interest rates, inflation or deflation, sovereign 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 not be 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, results of operations or cost of risk.

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 Chinese economy. The sharp drop in oil prices compared to 2014 has raised questions on the financial stability of certain countries (Gulf States, Africa) and of the oil sector, especially in the United States. Furthermore, an extended period of low interest rates in a low-inflation environment has heightened risk appetite on the markets. A sudden uptick in inflation could trigger an abrupt reassessment of market risks. The increase or accumulation of geopolitical risks (Middle East, North Korea, China Sea, Ukraine, Russian sanctions, etc.) or political risks is another source of uncertainty. The U.S. administration has illustrated the risk of a return to increased protectionism. The implementation of strong protectionist measures (or threats thereof) could affect the strength of international trade in goods and services. Moreover, the uncertainty caused by these sudden political changes, as well as potential consequences of the upcoming political changes in the European Union, could impact economic activity and credit demand, while increasing the volatility of financial markets.

In the Eurozone, the prolonged period of weak growth, the low inflation rate and low-to-negative interest rates have in the past adversely affected banks, and may continue to do so in the future, particularly with respect to interest rate margins for retail banks. The Group is exposed to the risk of substantial losses if sovereign states, financial institutions or other credit

counterparties become insolvent or are no longer able to fulfil their obligations to the Group. A resumption of tensions in the Eurozone may trigger a significant decline in the Group's asset quality and an increase in its loan losses in the affected countries. The Group's inability to recover the value of its assets in accordance with the estimated percentages of recoverability based on past historical trends (which could prove inaccurate) could further adversely affect its performance. In the event of a pronounced macroeconomic downturn, it may also become necessary for the Group to invest resources to support the recapitalisation of its businesses and/or subsidiaries in the Eurozone or in countries closely connected to the Eurozone such as those in Central and Eastern Europe. Lastly, the Group's activities and/or subsidiaries in certain countries could become subject to emergency legal measures or restrictions imposed by local or national authorities, which could adversely affect its business, financial position and results of operations.

#### A number of exceptional measures taken by governments, central banks and regulators could be amended or terminated.

In response to the financial crisis, governments, central banks and regulators implemented measures intended to support financial institutions and sovereign states, and thereby stabilise financial markets. 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. These central banks may decide, acting alone or in concert, to tighten their policies, which could substantially and abruptly decrease the flow of liquidity in the financial system and influence the level of interest rates. In the United States, the Fed has been raising its key interest rate since December 2015. 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, or to changes in the inflation rate. 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 financial institutions and, hence, on the Group's business, financial position and results of operations.

In the Eurozone, the ECB launched its asset-buying programme in March 2015. In October 2017, it announced that its monthly asset purchases would be reduced to EUR 30 billion starting January 2018 and continuing to September 2018 "or beyond". The ECB 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). In spite of all these measures, a resurgence of financial tension in certain Eurozone member states cannot be ruled out, which could result in national policies restricting cross-border capital flows. Furthermore, the risk of stronger-than-anticipated monetary tightening cannot be excluded, e.g. in the event of a sudden uptick in Eurozone inflation, provoking a sudden correction on the markets and an increase in risk premiums.

#### 3. The Group's results may be 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 resulted in an upturn in the housing market, but a potential relapse of the 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. In the other European Union countries, a slowdown or halt of the current economic recovery, for instance following the decision of the United Kingdom to leave the European Union (Brexit), scheduled for March 2019 (following notification by the United Kingdom in accordance with Article 50 of the Treaty on European Union on 29th March 2017), and could result in increased loan losses or higher levels of provisioning. In the long run, Brexit could weigh down the growth potential of the United Kingdom, given its strong commercial and financial ties with the European Union.

The Group is involved in commercial banking and investment banking operations in emerging markets, in particular in Russia and other Central and Eastern European countries, as well as in North Africa. 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. It is likely that high levels of uncertainty will persist in relation to these markets and therefore the related risk. Unfavourable economic or political developments affecting these markets could have a material adverse effect on the business, results and financial position of the Group.

This is especially true in Russia. As a result of the Ukraine crisis, since March 2014 the United States, the European Union and other countries and international organisations have imposed several rounds of sanctions on Russian individuals and corporates. These sanctions were strengthened by the United States in August 2017. The sanctions, combined with the substantial decline in global oil prices, 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.

#### The Group operates in highly competitive industries, including in its home market.

The Group is subject to intense competition in the global and local markets in which it operates. In local markets, including France, the Group faces substantial competition from locally-established banks, financial institutions, businesses providing financial and other services and, in some instances, governmental agencies. This competition exists in all of the Group's businesses.

In France, the presence of major domestic competitors in the banking and financial services sector, as well as new market competitors (such as online retail banking and financial services providers), has increased competition for virtually all of the Group's products and services. The Group must also cope with the emergence of fintechs, which are reshaping the manner in which consumers interact with financial service providers by offering automated, scalable software-based services rather than branch networks. The French market is a mature market and one in which the Group holds significant market share in most of its businesses. Its financial position and results of operations may be adversely affected if it is unable to maintain or increase its market share in key lines of business. The Group also faces competition from local participants in other geographic markets in which it has a significant presence. Gradually, certain sectors of the financial services industry have become more concentrated, as institutions offering a broad range of financial services have been acquired by or merged into other firms, or have declared bankruptcy. Such changes could result in the Group's remaining competitors benefiting from greater capital resources or other advantages, such as the ability to offer a broader range of products and services or greater geographic diversity. As a result of all these factors, and competitors' efforts to increase market share by reducing prices, the Group has experienced pricing pressures in the past, and may face similar pressures in the future.

Competition on a global level, as well as on a local level in France and in other key markets, could have a material adverse effect on the Group's business, results of operations and financial position.

#### 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 (supervisors, suppliers, etc.). Its reputation could be harmed by events attributable to it, flaws in its control measures, non-compliance with its commitments 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 and its competitive position.

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. 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.

#### The Group depends on access to financing and other sources of liquidity, which may be restricted for reasons beyond its control.

The ability to access short-term and long-term funding is essential to the Group's businesses. Societe Generale funds itself on an unsecured basis, by accepting deposits, issuing long-term debt, promissory notes and commercial paper, and obtaining bank loans or lines of credit. The Group also seeks to finance many of its assets on a secured basis, including by entering into repurchase agreements. 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 (especially if competitors raise the interest rates they are willing to pay to depositors, for example, leading customers to move their deposits elsewhere), the Group may be forced to turn to more expensive funding sources, which would reduce the Group's net interest margin and results.

The Group's liquidity could also be adversely affected by factors the Group can neither control nor anticipate, such as general market disruptions, operational difficulties affecting third parties, negative views about the financial services industry in general, or the Group's short-term or long-term financial prospects, as well as changes in the Group's credit ratings or even market participants' perception of the Group or other financial institutions

The Group's credit ratings can have a significant impact on the Group's access to funding and also on certain financing and trading revenues. In connection with certain OTC trading agreements and other securities agreements, the Group may be required to provide additional collateral to certain counterparties in the event of a credit rating downgrade. Rating agencies monitor in particular issuer-specific factors, such as governance, strategy, quality and diversity of earnings sources, capital adequacy, quality and diversity of earnings sources, capital adequacy, quality of the balance sheet structure, risk management and risk appetite. Additionally, they take into account the regulatory and legislative context, as well as the macroeconomic environment in which the Bank operates. Therefore, a deterioration in any of the above factors may lead to a rating downgrade for the Group or other players in the European banking industry.

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.

Moreover, the Group's ability to access capital markets and the cost of its long-term unsecured funding are directly related to its credit spreads in both the bond and credit derivatives markets, which the Group can neither control nor anticipate. 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.

#### 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.

In many of the Group's businesses, a protracted financial market decline, 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. Assets that are not traded in 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.

The continuation of low interest rates and accommodative monetary policy could cause certain yield-seeking participants in the financial markets to change their behaviour and take on additional risks, resulting in lengthened maturities, greater product complexity, the emergence of new market practices, etc. This 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.

## 8. 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. Severe market disruptions and extreme 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 2017, a context of historically low volatility emerged, reflecting generally optimistic sentiments on the markets, as well as the presence of systemic volatility sellers. This situation may increase the risk of a correction, which could impact the Group, especially if key market participants adopt similar positions on certain products.

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, if significant, could have a material adverse effect on the Group's results of operations and financial position.

#### Changes in interest rates may adversely affect the Group's banking and asset management businesses.

The share of the Group's results arising from interest income is influenced by changes and fluctuations in interest rates in Europe and in the other markets in which it operates. Interest rate sensitivity refers to the relationship between changes in market interest rates and changes in net interest margins and balance sheet values. Any mismatch between interest owed by the Group and interest due to it (in the absence of adequate hedging) could affect the Group's results of operations.

#### 10. Fluctuations in exchange rates could adversely affect the Group's results of operations.

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. Fluctuations in the exchange rates for these currencies against the euro may have a negative impact on the Group's consolidated results of operations, financial position and cash flows, despite any hedges that may be implemented by the Group to limit its foreign exchange exposure. Exchange rate fluctuations may also affect the value (denominated in euros) of the Group's investments in its subsidiaries outside the Eurozone.

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

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. The rules applicable to financial services providers govern, among other things, the sale, placement and marketing of financial instruments. The Group's banking entities must also comply with requirements as to capital adequacy and liquidity in the countries in which they operate. Compliance with these rules and regulations requires significant resources. Non-compliance with applicable laws and regulations could lead to fines, damage to the Group's reputation, forced suspension of its operations or the withdrawal of operating licences.

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. Certain 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.

Since January 2014, Societe Generale has applied the new Basel 3 reforms, implemented in the European Union through the Capital Requirements Regulation ("CRR") and Capital Requirements Directive 4 ("CRD4"), with certain requirements being phased in over a period of time, up until 2019 or even later. Basel 3 is an international regulatory framework to strengthen capital and liquidity requirements with the goal of promoting a more resilient banking sector. Recommendations and measures addressing the systemic risk exposure of global banks, including additional loss absorbency requirements, have been adopted by the Basel Committee and the Financial Stability Board ("FSB"), which was established following the G20 London summit in 2009. Societe Generale, among other global banks, has been named by the FSB as a "systemically important bank" ("G-SIB") and as a result is subject to additional capital buffer requirements.

Furthermore, on 7<sup>th</sup> December 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. The new regulations should apply from 2022 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 timeframe therefore remains subject to further changes.

In France, Act No. 2013-672 dated 26th July 2013 on the separation and regulation of banking activities (as amended by Ordinance No. 2014-158 dated 20th February 2014 stipulating various measures to align French legislation with EU financial law) (the "Banking Law") mandates the separation of certain market activities performed by significant credit institutions when such activities are considered "speculative" (i.e. those deemed not necessary for the financing of the economy). Unless an exception applies under the law (such as market-making, treasury management, etc.), this obligation covers all banks' proprietary trading. In accordance with the Banking Law, the Group has segregated the relevant activities in a special subsidiary (Descartes Trading) since July 2015.

Ordinance No. 2015-1024 dated 20th August 2015, ratified by Act No. 2016-1691 dated 9th December 2017, stipulating various measures to align French legislation with EU financial law (the "Ordinance") amended the provisions of the French Monetary and Financial Code (Code monétaire et financier) in order to implement into French law Directive 2014/59/EU of 15th May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms (the "BRRD"). Many of the provisions contained in the Banking Law were already similar in effect to the provisions of the Ordinance. Decree No. 2015-1160 dated 17th September 2015 and three orders dated 11th September 2015 regarding (i) recovery planning, (ii) resolution planning and (iii) criteria to assess the resolvability for institutions or groups, supplemented the provisions of the Ordinance implementing the BRRD into French law.

The Ordinance requires that credit institutions subject to the direct supervision of the ECB (such as Societe Generale) and credit institutions and investment firms that represent a significant share of the financial system, draw up and submit to the ECB a recovery plan providing for measures to be taken by such institutions to restore their financial position following a significant deterioration of the same.

These reforms could have a significant impact on the Group and its structure, as well as the value of its equity and debt securities

Regulation (EU) No. 806/2014 of 15<sup>th</sup> July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund created the Single Resolution Board (the "SRB"). Since January 2015, the SRB has had the authority to collect information and cooperate with the ACPR for resolution planning purposes. As from January 2016, the resolution powers of the ACPR have been overridden by those of the SRB within the framework of the Single Resolution Mechanism.

Since November 2014, Societe Generale and all other major financial institutions in the Eurozone have been subject to the supervision of the ECB as part of the implementation of the single supervisory mechanism. As set out above, Societe Generale has also been subject to the Single Resolution Mechanism since January 2016. The full impact of this new supervisory structure on the Group cannot yet be fully evaluated.

The MREL ratio ("Minimum Requirement for own funds and Eligible Liabilities") is defined in the BRRD and has been implemented into French law by the Ordinance. It 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 amount of own funds and eligible liabilities expressed as a percentage of the institution's total liabilities and own funds. The BRRD, which defines the MREL, is being revised in order to converge this ratio with the TLAC.

The TLAC ("Total Loss Absorbing Capacity") ratio was developed by the FSB at the request of the G20 and finalised in November 2015. The following provisions have become the new international standard for G-SIBs:

- (i) G-SIBs are required to meet the TLAC ratio requirement alongside the minimum regulatory requirements set out in the Basel 3 framework. In particular, as from 1st January 2019, G-SIBs are required to meet a minimum TLAC ratio requirement of at least 16% of the resolution Group's risk-weighted assets (TLAC RWA Minimum), on top of which the Basel 3 regulatory capital buffers are added. As from 1st January 2022, the TLAC RWA Minimum requirement will be at least 18%. Minimum TLAC leverage ratio must also be at least 6% of the Basel 3 leverage ratio denominator (TLAC Leverage Ratio Exposure Minimum) as from 1st January 2019, and at least 6.75% as from 1st January 2022. Home authorities may apply additional firm-specific requirements above these minimum standards.
- (ii) The standards determine the core features for TLAC-eligible instruments. TLAC instruments must be subordinated (structurally, contractually or statutorily) to operational

liabilities. However, EU banks will be allowed to include a limited amount of senior debt (2.5% of RWA in 2019, 3.5% of RWA in 2022) subject to regulatory approval. TLAC instruments must have a remaining maturity of at least one year. Insured deposits, sight or short-term deposits, derivatives and structured notes are excluded.

(iii) In order to reduce the risk of contagion, G-SIBs may be required to deduct exposures to eligible TLAC instruments and liabilities issued by other G-SIBs from their own TLAC position.

Furthermore, the CRR2/CRD5, a legislative proposal from the European Commission, was published in November 2016, to be voted in Parliament in 2018 depending on the progress of the tripartite discussions, with the application of the majority of the provisions two years after the coming into effect. 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;
- SA-CCR (Standardised Approach Counterparty Credit Risk): SA-CCR is the Basel method that replaces the current "CEM" method to determine the prudential exposure on the 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 FRTB: the final text on the remodelling of the internal and standardised approaches for market risk (Minimum capital requirements for market risk) was published in January 2016, but the Basel Committee is currently reviewing certain structuring elements of this standard and is expected to submit a new version by the end of 2018. The Basel Committee is targeting entry into force of the new market risk capitalisation regulations for 1st January 2022. While its implementation via the CRR2 guidelines is now being considered at the European level, the timeframe for deployment has not yet been decided.

The impact of the new regulatory framework cannot yet be fully estimated; however, the Group's financial position and cost of funding could be affected.

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 to enhance banking supervision and regulation and contribute to financial Dodd-Frank stability. The Act and other post-financial-crisis regulations implemented in the US have increased costs, restricted business and resulted in greater regulatory supervision, as well as an increased risk of the introduction of additional measures negatively impacting 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 Dodd-Frank Act also provides for new measures enhancing systemic risk oversight, prudential norms for banks, the orderly resolution of failing 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.

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 certain restrictions on the Group's activities. The new US Presidential administration has expressed different policy goals, reflected in a series of reports by the U.S. Treasury Department. In addition, some regulatory adjustments are making their way through Congress, which is however expected to leave most of the Dodd-Frank Act intact. Even though the new US Presidential administration is closing in on replacing key leadership positions at important federal financial regulatory agencies, the exact impact of these replacements, and resulting change in the tone from the top at those agencies, remains to be seen. The new policies, tone from the top, 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.

In May and June 2017, the European Commission published two regulation proposals amending EMIR (European Market Infrastructure Regulation). Amongst the proposed changes, European Union authorities' supervisory power over central counterparties of a third country would be strengthened so that European Union authorities could require such central counterparties to become established and authorised in the European Union ("Localisation Policy") in the event of significant risks to the financial stability of European Union Member States posed by a central counterparty of a third country. While the complete ramifications of the Localisation Policy remain uncertain, particularly in the Brexit context, it could, if implemented, generate operational risks and cost increases, negatively impacting the operational and financial results of the Group.

The implementation of transparency and accountability regulations is still ongoing, notably within the framework of the Dodd-Frank Act in the United States and EMIR in Europe. Among other things, these regulations aim to generalise compensation with clearing houses for "standard" market transactions, and for non-standard transactions, to subject them to bilateral variation margin exchange agreements aimed at covering current exposure, and from certain position thresholds for over-the-counter derivatives, to bilateral initial margins exchange obligations, in order to cover future exposure. In 2017, the variation margin exchange has become mandatory for all financial counterparties. This has represented the largest volume of collateral contract renegotiations (CSA, ARG, etc.). As from September 2017, all category 2 counterparties (financial institutions dealing with more than a certain notional amount) are also required to exchange initial margins. The entry into force of this rule for initial margins will extend until 2020 for the other counterparty categories, which makes an accurate assessment of its impact difficult.

Compliance with personal data protection rules is also of key importance for the Societe Generale Group. Internal instructions set out the rules to be applied and the procedures to be carried out, in conformity with European and local regulations, in order to ensure the protection and security of our clients' and employees' data. In anticipation of the implementation of the new General Data Protection Regulation (GDPR), applicable from 25th May 2018, Societe Generale launched a broad Group-wide programme in 2016. This programme encompasses all of the new requirements introduced by the GDPR, in particular with regard to the security and use of personal data, as well as the implementation of strengthened rights for interested parties. Non-compliance with the GDPR could negatively impact the Group's financial position and results of operations.

In addition, the Group is subject to complex tax rules in the various countries in which it operates. Changes in applicable tax rules, uncertainty regarding the interpretation of such changes, or the effects of such changes on the Group may materially and adversely affect the Group's business, financial position and results of operations.

#### 12. The Group is exposed to counterparty and concentration risks

The Group is exposed to credit risk with respect to numerous counterparties in the ordinary course of its trading, lending, 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 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, which could in turn materially adversely affect its business, results of operations and financial position. 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 significantly impact the Group's activity.

The Group may also have concentrated exposure to a particular counterparty, borrower or issuer (including sovereign issuers), or to a particular country or industry. A significant ratings downgrade, default or insolvency affecting such a counterparty, or a deterioration of economic conditions in such a country or industry, could have an adverse effect on the Group's business, results of operations and financial position. The devices and methods the Group uses to limit and monitor the level of its credit exposure to individual entities, industries and countries 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.

#### 13. 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. Many of these transactions expose the Group to credit risk in the event of default by counterparties or clients. 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.

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

If any of the instruments or strategies that the Group uses to hedge its exposure to various types of risk in its businesses is not effective, it may incur significant losses. Many of these strategies are based on historical trading patterns and correlations that may not be appropriate in the future. For example, if the Group holds a long position in an asset, it may hedge that position by taking a short position in another asset whose value has historically moved in an offsetting direction. However, the hedge may cover only part of its exposure to the long position, and the strategies used may not protect against all future risks or may not be fully effective in mitigating its risk exposure in all market environments or against all types of risk in the future. Unexpected market developments may also reduce the effectiveness of the Group's hedging strategies.

## 15. The Group's results of operations and financial position could be adversely affected by a significant increase in new provisions or by inadequate provisioning for loan losses.

The Group regularly sets aside provisions for loan losses in connection with its lending activities. Its overall level of loan loss provisions, recorded as "cost of risk" in its income statement, is based on its assessment of the recoverability of the loans in question. This assessment relies on an analysis of various factors, including historical losses, the amount and type of lending being granted, industry standards, past due loans, certain economic conditions and the amount and type of any guarantees and collateral. Notwithstanding the care with which the Group carries out such assessments, it could be required to substantially increase its provisions for loan losses, following an increase in defaults or for other reasons. 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 its results of operations and financial situation.

Starting in 2018, the Group will record new provisions on performing loans under the IFRS9 accounting standard. The initial impact of the implementation of this standard, understood as the difference between the currently accounted provisions on homogenous groups of performing loans under IAS39 and the new provisions on performing loans, will be deducted from the Group's equity. Consequently, the Group's cost of risk could be negatively impacted by a proven or expected deterioration in the prospects of the amounts outstanding of performing loan portfolios pursuant to the new accounting standard.

16.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 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, the 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, the 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 significant impact 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 quoted 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), underwriting reserves 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; and
- in the event of the loss of control over a consolidated subsidiary, fair value of the stake potentially retained by the Group in such entity, where applicable.

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 as for other financial institutions, 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 would adversely affect the Group's business, financial position and results of operations. For a description of the most significant ongoing proceedings, see Compliance, reputational and legal risks.

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.

In preparing the Group's financial statements, the Group Management 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. 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 materially and adversely affected.

18. 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 selection of an acquisition target is carried out by the Group following a careful analysis of the businesses or assets to be acquired. However, such analyses may not always be exhaustive, due to various factors. As a result, certain acquired businesses may include undesirable assets or expose the Group to increased risks, particularly if the Group was unable to conduct full and comprehensive due diligence prior to the acquisitions.

The successful integration of a new business typically requires effectively coordinating business development and marketing initiatives, retaining key managers, recruitment and training, and consolidating information technology systems. These tasks 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.

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

The Group has devoted significant resources to develop its risk management policies, procedures and assessment methods, and intends to continue to do so in the future. Nonetheless, these risk management techniques and strategies may not be fully effective in mitigating its risk exposure in all economic market environments or against all types of risk, including risks that it fails to identify or anticipate. Some of its qualitative tools and metrics for managing risks are based upon observed historical market behaviour. The Group applies statistical and other tools to these observations in order to assess its risk exposures. These tools and metrics may fail to predict accurate future risk exposures that arise from factors the Group did not anticipate or correctly evaluate in its statistical models. Failure to anticipate or manage these risks could have a material adverse effect on the Group's business, financial position and results of operations.

20. 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.

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, exchanges and clearing houses), 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 in the event of any such failure, termination or constraint.

The interconnectivity of multiple financial institutions with clearing agents, exchanges and clearing houses, 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. 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 constraint could adversely affect its ability to effect transactions, provide customer service, manage its exposure to risk or expand its businesses or result in financial losses, liability towards its clients, impairment of its liquidity, disruption of its businesses, regulatory intervention or reputational damage.

In addition, 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 have a material adverse effect on the Group's business and result in operational losses.

The Group relies heavily on communication and information systems to conduct its business. Any failure, interruption or breach in security of these systems, even if only brief and temporary, could result in business interruptions and lead to additional costs related to information retrieval and verification, reputational harm and a potential loss of business. This could also have a material adverse effect on the Group's business, results of operations and financial position, and could result in litigation.

#### 21. 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), could create economic and financial disruptions, lead to operational difficulties (including travel limitations or relocation of affected employees) that could impair the Group's ability to manage its businesses, and expose its insurance activities to significant losses and increased costs (such as re-insurance premiums).

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

During the market downturn, 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, such as the adoption of a financial transaction tax, 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 that reduces the value of its clients' portfolios or increases the amount of withdrawals would reduce the revenues the Group

generates from its asset management, custodial and private banking businesses.

#### 23. The Group's inability to attract and retain qualified employees, as well as significant changes in the regulatory framework related to employees and compensation, may materially adversely affect its performance.

A high rate of turnover and 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 (Russia, Romania and India). In order to attract and retain highly qualified employees, the Group must therefore offer career paths, training and development opportunities, and compensation levels in line with market practices, which may negatively impact the profitability of its operations.

Furthermore, the European financial industry is subject to stringent regulation of employee compensation, including rules on bonuses and other incentive-based compensation, and/or deferred payments for certain types of compensation, and the Group, like all participants in the financial industry, must adapt to this changing environment in order to attract and retain qualified employees.

The CRD4 Directive, which has applied since 2014 to banks in the European Economic Area, introduced a ceiling on the variable component of compensation in relation to the fixed component for the regulated population. This regulatory constraint could cause a relative increase in fixed compensation within the Group in relation to the variable component, which could create challenges in attracting and retaining key personnel, increase the fixed cost base of the affected population, and limit the flexibility of the Group's personnel costs as well as its competitiveness.

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

The Group has communicated on a number of strategic objectives, notably its new strategic and financial plan for the 2017-2020 period, introduced on 27th November 2017. These plans and objectives provide for a number of initiatives, in particular a plan to accelerate the digital transformation of its model, the streamlining of its French Retail Banking network, and the strengthening of its internal control function. They include a certain number of financial objectives, such as, among others, objectives related to net banking income, costs, profitability and regulatory ratios. The Group's future results may differ significantly from these objectives for various reasons, including upon the occurrence of one or more of the risk factors described in this section. If the Group is unable to reach its objectives, or to pursue its various initiatives, it may have an adverse effect on the Group's activity, results of operations and financial position.

#### 2.2 TYPES OF RISK

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

- Credit and counterparty risk (including concentration effects): 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 risks: 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,
    or of material financial loss, due to failure to comply with
    the provisions governing the Group's activities;
  - 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: 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, including in the long term.
- Model risk: the Group makes use of models in the course of its activities. Selecting a particular model and configuring its parameters necessarily involves a simplification of reality and can result in an inaccurate assessment of risk.

- Structural interest and exchange rate risk: risk of losses of interest margin or of banking book value due to changes in interest or exchange rates. Structural interest and exchange rate risks arise from commercial activities and from corporate centre transactions.
- Liquidity and funding risk: liquidity risk is defined as the Group's inability 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 risks: risks resulting from the Group's inability to execute its strategy and to execute its business plan.
- Private equity risk: risk of losses linked to financial holdings of a private equity nature.
- 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.

#### 2.3 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 firm European base 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 based on 17 Business Units offering different products and services tailored to clients in different regions;
- a geographically balanced model where 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;

- 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 integration of CSR issues as a core element of its strategy and of its relations with stakeholders;
- vigilance regarding the Group's reputation, which it views as a high-value asset that 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 lasting development of the business lines;
- 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 the minimum regulatory requirements in the baseline scenario, with a security buffer,
  - a sufficient level of creditor protection, consistent with the Group's goals with respect to the target rating and future regulatory ratios (Total Loss Absorbency Capacity (TLAC) for instance);

- ensuring resilience in its liabilities, which are calibrated taking into account the 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 wholesale funding;
- 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.

#### Structural interest rate and exchange risks

The Group assesses and strictly controls structural risks. The mechanism for controlling interest rate risk, foreign exchange risk and the risk on employee benefits is based on sensitivity or

stress limits adapted to each of the various businesses (entities and business lines).

RISK APPETITE

#### Liquidity and funding risks

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).

#### 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 offering the potential for profitable business development over the medium-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 individual and sector concentration risk and maintaining a policy of spreading risk by sharing it with other financial partners.

So as to closely monitor portfolio quality, the Group has established alert thresholds using a series of credit portfolio quality indicators that are monitored quarterly by the Risk Committees (CORISQ and the Risk Committee of the Board of Directors).

The Group seeks to maintain an exposure to country risks that reflects its strategic selections in terms of its foreign operations and that limits concentrations in high-risk countries.

The Group defines specific credit policies for sectors or types of credit transaction that present concentration risks or have a specific or intrinsically higher risk profile. This mechanism is bolstered by portfolio limits.

As regards Retail Banking in particular:

- the criteria for granting housing loans take into account the value of the property financed and climate change issues, but are primarily predicated upon an analysis of the borrower's ability to repay the loan. In France, the Group favours loans that are eligible for the Crédit Logement guarantee;
- consumer credit activities have a risk of loss significantly higher than the other retail banking activities, which requires a commensurate and robust loan pricing and supply policy, as well as proactive collection management;
- the Group has a moderate appetite for credit risk in private banking activities. This business targets clients that are inherently low-risk and applies a conservative credit policy, in line with this risk appetite.

#### **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 limit, which covers all activities and the main market risk factors, plays a pivotal role in determining the Group's market risk appetite. The risk/reward ratio – represented by a limit in the form of the Global Stress Test to budgeted net banking income ratio – is subject to specific monitoring.

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's activities strictly comply with all laws and regulations governing financial and banking activities. In particular, the Group strives to:

- 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;
- perform transactions, offer products and advisory services and work with partners in accordance with regulations governing, in particular, client protection and market integrity, as well as in line with its tax and anti-corruption undertakings;
- anticipate and manage conflicts of interest;
- protect the data of its clients and employees;
- control the risk of serious environmental damage or human rights infringements associated with its activities, as defined by the French law on the Duty of Vigilance;
- develop a culture of compliance among its employees and ensure that they may express concerns and submit complaints ("whistle blowing").

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

- it emphasises employee loyalty with respect to clients and the integrity of its 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.

Societe Generale is extremely careful with respect to its reputation. The prevention and detection of the risk of harm to its reputation are integrated within all the Group's operating practices. This vigilance forms part of the Group's sustainable development strategy.

#### 2.4 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 the Group risk appetite proposed by General Management. 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 periodically 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 provisional 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.

#### 2.5 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 related to internal control of companies in the banking sector, payment services and investment services subject to 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. 85.)

#### **BOARD OF DIRECTORS**

AUDIT AND INTERNAL CONTROL COMMITEE

**RISK COMMITTEE** 

COMPENSATION COMMITTEE

NOMINATION AND CORPORATE GOVERNANCE COMMITTEE

#### **GENERAL MANAGEMENT**

STRATEGIC SUPERVISION COMMITTEES

GROUP STRATEGY COMMITTEE Implements the Group's strategy

SUPERVISION COMMITTEE

STRATEGY OVERSIGHT COMMITTEE

Reviews markets and clients activities, transformation and innovation projects, HR and mid-term financial projections and targets

OPERATIONAL SUPERVISION COMMITTEES GROUP RISKS COMMITTEE (CORISQ)

Supervises guidelines governing risks, in particular the management of different risks: credit, country, market and operational risk FINANCE COMMITTEE (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 COMMITTEE (CCCIG)

Responsible for the design, consistency and effectiveness of the Group's overall internal controls COMPLIANCE COMMITTEE (COM-CO)

principles at Group level

CORPORATE STRATEGIC ARCHITECTURE COMMITTEE (CSAE)

Defines the company's architecture in terms of data and reference databases, operational processes and IT systems. Ensures the consistency of Group projects with 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.

This can take the form of:

- clear principles for the governance, control and organisation of risks,
- determining and formally defining the Group's risk appetite,
- effective risk management tools,
- risk awareness that is cultivated and established at each level of the Company.

#### **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. 550) is more specifically responsible for examining the consistency of the internal risk monitoring framework, as well as compliance with this framework and with the applicable laws and regulations.

The Board of Directors' Audit and Internal Control Committee (see Art. 10 of the Internal rules of the Board of Directors, p. 549) 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 20 times in 2017, addresses the Group's key priorities in term of risks. It takes the major decisions relating to the management of different risks (credit risks, country risks, market and operational risks). The Group also has a Large Exposures Committee, which approves 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 DFIN and SEGL);
- the Compliance Committee (COM-CO) 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, its consistency and its efficiency.

#### 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 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.
- In addition to its financial management responsibilities, the Group Finance Division also carries out extensive accounting and finance controls. As such:
  - the Mutualised Operations Activities Department is responsible for accounting, regulatory and tax production for entities under its responsibility (o.w. Societe Generale SA); it is also responsible for coordinating the continuous improvement and management of processes for entities within its scope;
  - the missions of the ALM Department, the Balance Sheet and Global Treasury Management Department, and the Strategic Financial Management Department are detailed in the "Structural and liquidity risks" section, p. 153 of this report.
- The Finance Departments of the Business Units, which report hierarchically to the Group Finance Division and functionally to the core businesses' managers, 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.) submitted to the Group Finance Division.
- The Group Compliance Division, which has been reporting to General Management since 1<sup>st</sup> 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 monitors the security and legal compliance of the Group's activities, relying where applicable on the Legal Departments of subsidiaries and branches, and the Group Tax Department; which ensures compliance with tax laws in France and abroad.
- 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 2017) with respect to full-time equivalent (FTE) employees:

- the Group Risk function had 5,390 FTE employees (including 1,000 FTE employees within the Group Risk Division);
- the Compliance function had approximately 2,226 FTE employees;
- the Information System Security function had approximately 368 FTE employees.

#### **Characteristics by risk**

#### STRUCTURAL AND LIQUIDITY RISKS

Structural risks 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 are respected and conducts a periodical review of the ALM risk framework in coordination with the first-level control teams.

Each entity 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 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**

Management of credit risk is based on four core principles:

- all transactions involving credit risk (debtor risk, settlement/delivery risk, issuer risk and replacement risk) must be pre-authorised;
- responsibility for analysing and approving transactions lies with the dedicated primary customer relations unit and risk unit, which examine all authorisation requests relating to a specific client or client group, to ensure a consistent approach to risk management;
- the primary customer relations unit and the risk unit must be independent from each other;
- credit decisions must be systematically based on internal risk ratings (obligor rating), as provided by the primary customer relations unit and approved by the Risk Division.

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.

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daily calculation and certification of market risk indicators

reporting and first-level analysis of these indicators;

based on formal and secure procedures;

- daily monitoring of the limits set for each activity, in conjunction with the Market Risk Department;
- verification of the market parameters used to calculate risks and results, with the Market Risk Department bearing responsibility for validating sources and defining the methods used to determine the parameters;
- monitoring and control of the gross nominal value of positions. This system is based on alert levels applied to all instruments and desks, defined in collaboration with the Market Risk Department, and contributes to the detection of possible rogue trading operations.

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

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

- 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;
- lastly, 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.

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.

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.

Together with the core businesses, the Risk Division has defined a control and monitoring system based on the credit risk policy. Said 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 Funds 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).

To carry out these different tasks, the Market Risk Department uses the information provided by the Market Analysts & Certification Community (MACC), which independently monitors the Group's market positions on a permanent and daily basis, through:

#### RISK MANAGEMENT

On the other hand, the parameters used in the valuation models, whether derived from observable market data or not, are checked by the Finance Division and MACC (Independent Pricing Verification), the sources of the parameters having been approved by the Market Risk Department beforehand. If necessary, the valuations obtained are supplemented by reserves or adjustments (such as bid-ask spreads and liquidity), based on computation methodologies 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.

#### 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. Over the last several years, the Group has implemented significant improvements in its calculation

system, which have been approved by the supervisory authorities

- 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 derivatives products. For Group entities where the internal model has been approved (a request for approval for the ex-Newedge scope will be considered in 2018), the internal model covers 96% 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 consultation with the businesses. This includes risks related to information systems and Group information security, which is the responsibility of the Group's Chief Information Security Officer, especially in terms of policy definition

In particular, the Operational Risk Department is responsible for:

- defining the framework for the management of operational risks that enables the identification, monitoring and reporting of these risks for all the Group's businesses;
- providing a critical view of the operational risk management system in place in the businesses and of the effective management of the risk.

The Operational Risk Department is also in charge of:

- business continuity and crisis management, based on the identification of threats to the Group and their possible effects, while taking into account prevention, protection and deterrence actions;
- regarding specifically operational risks related to information systems and information security:
  - the critical review of risk management,
  - the definition of standards carried out jointly with the information systems security sector.

To cover the entire Group, the Operational Risk Department relies on a central team and regional teams which provide the central team with the necessary information to consolidate a holistic and prospective vision of the Bank's risk profile, both for internal steering requirements and to meet regulatory requirements.

Regional teams are responsible for fulfilling the Operational Risk Department's tasks, taking into account the specific requirements of the regulatory authorities applicable in their region.

The Operational Risk Department exchanges with the first line of defence through a network of operational risk correspondents within each business. As first line of defence, the businesses are responsible for enforcing the system and implementing controls to ensure that risks are identified, analysed, measured, monitored, managed, reported and contained within the limits of the risk appetite defined by the Group.

#### **RISKS RELATED TO INFORMATION SYSTEMS**

The management, monitoring and communication systems related to Information System Security and risks are coordinated at Group level by the Head of Information System Security and IT Risk Management within the Corporate Resources Division.

These systems can be grouped into four broad categories: awareness, prevention, detection and response. They are derived from best practices (mainly ISO 27002 and security standards of the French National Agency for Information System

Security) and are subject to constant monitoring by the Information System Security function. They have been rolled out within each of the Group's businesses.

At the operating level, the Group relies on a Computer Emergency Response Team that manages incidents, monitors developments in information system security and combats cybercrime using a multitude of information and supervision sources both internal and external to the Group.

The risk of cybercrime, which is increasingly significant for banks, is addressed in a cooperative way by the Information Systems Security and Operational Risk Departments and is monitored by General Management under the Information Security Master Plan.

Given the increasing number and sophistication of digital attacks, Societe General places cybersecurity at the heart of its concerns in order to protect its customers, their data and its information systems.

To meet these challenges, the Group guarantees data security and compliance with banking secrecy. It invests continuously to better protect the assets and transactions of its customers.

The information systems' security strategy is aligned with that of the Group by acting on five areas:

- the security of the Group's sensitive applications;
- the security of all customer, personal or banking data;
- the Group's detection and reaction capabilities;
- reinforcing the security offered to customers (with robust but also user-friendly tools);
- awareness and support of customers and employees.

All anti-cybercrime measures are based on prevention and protection, detection and response, and on raising awareness among customers and employees.

A central team is responsible for managing and monitoring IT operational risks. This team's main responsibilities are to:

- identify and evaluate the Group's major IT risks, including extreme risk scenarios (e.g. cyber-attack, service provider failure) enabling the Bank to better understand its risks, be better prepared for extreme risk scenarios and better align its investments with its IT risks;
- provide information enabling the Bank's management to steer risks, in particular via Key Risk Indicators (KRIs). These are communicated to Societe Generale's Risk Committee and to the Board of Directors' Risk Committee. They are reviewed regularly to stay aligned with the IT and security strategy and their objectives;
- more generally, ensure the quality and reliability of all devices addressing IT operational risks. Special attention is paid to the permanent control system for its IT risks, which is based on the definition of the IT Normative Control Library and the support of the Group in the deployment of IT managerial supervision. In 2017 a new version of the IT Normative Control Library was developed, taking into account the requirements of the General Data Protection Regulation.

#### **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 MRM 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. MRM may perform any due diligences required by regulation 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.

#### **COMPLIANCE RISKS**

The Group Compliance Division has, since 1<sup>st</sup> June 2017, reported to General Management. Accordingly, it has become a Corporate Division in its own right, just like the Risk Division and the Internal Audit Division.

The Compliance Division:

- ensures that all laws, regulations and ethical principles applicable to the Group's banking and investment services activities are observed, and that all staff respect codes of good conduct and individual compliance;
- develops a homogeneous standardised framework and ensures compliance therewith;
- organises awareness-raising and training for all stakeholders on the prevention of compliance and reputational risks;
- ensures compliance with data protection regulations, which is a major consideration when developing new technologies and IT systems.

The Compliance Division is organised into departments dedicated to the Group's businesses and into cross-business departments.

Four departments are dedicated to the businesses: (i) "Retail Banking and Financial Services", (ii) "Global Banking and Investor Solutions", (iii) "Private Banking" and (iv) "Insurance", with a specially appointed manager reporting to the Head of the Compliance Division, except for the department dedicated to the Insurance business line, which reports to him functionally.

Subsidiary compliance officers in France and abroad report to the business line compliance officers through a hierarchical or functional link, depending on the local regulations.

The cross-business departments are responsible for developing their skills and expertise across the Group:

- "Group Financial Security" for Know your Customer (KYC) obligations, the anti-money laundering and countering terrorist financing (AML/CTF) mechanism, and compliance with embargoes and sanctions;
- "Regulatory Expertise and Oversight" for updates to the function's regulatory framework, awareness-raising and training of employees regarding compliance risks and the coordination of regulatory projects at Group level;
- "Control" for the coordination and implementation of a permanent second-level compliance control system, oversight of personnel operations covered by a Code of Conduct, the Corporate Secretary of the Group Compliance Incidents Committee (CIC), and the production of Group dashboards (compliance and reputation);
- "Global and strategic development" assists the Head of Group Compliance with respect to peer comparisons, the anticipation of and support with regulatory developments, and carrying out transformation and efficiency projects. In particular, it coordinates the Compliance function's Compliance Transformation Programme (CTP) and monitors the United States remediation plan;
- The "Data Protection Officer", a position created in September 2017, ensures compliance with regulations on personal data protection.

On a monthly basis within the Group Compliance Incidents Committee (CIC), the Head of Group Compliance convenes the Deputy Head of Group Compliance, the Head of Group Financial Security, the Heads of Compliance dedicated to the businesses, the Head of Internal Control Coordination, the Chief Legal Officer, a General Inspection Officer, the Data Protection Officer, and the Head of Regulatory Expertise & Oversight. The Committee reviews the most significant compliance events over the period for the entire Group, decides upon the measures to be taken and monitors their implementation.

#### **COMPENSATION POLICY AND RISK**

Since the end of 2010, within the regulatory framework defined by the European Capital Requirements Directive (CRD3), Societe Generale has implemented a specific governance structure to determine variable compensation. In addition to financial markets professionals, the rules established by this directive apply to all persons whose activity is likely to have a material impact on the risk profile of the institutions employing them, including those carrying out control functions.

According to the principles approved by the Board of Directors, based on the proposal of the Compensation Committee, the mechanisms and processes relating to the compensation of such employees take into account not only the financial result generated by the transactions they perform, but also the way in which this result is generated, through the control and management of all risks as well as the observance of risk and compliance policies. The compensation paid to employees performing control functions is independent of the results of the transactions they control, but is instead based on criteria specific to their activity.

The variable part of the compensation includes a non-deferred portion and a deferred portion awarded pro rata over three years subject to conditions of presence, performance and possible claw-back. Fifty per cent at least of this compensation is awarded in the form of shares or share-equivalents. These terms of payment aim to align compensation with the Company's performance and risk horizon.

The Risk Division and Compliance Division contribute to the definition and application of this policy.

The regulatory framework defined by European Directive CRD4 has been in force since 1<sup>st</sup> January 2014. It does not change the rules for determining the variable compensation of those persons whose activity is likely to have a material impact on the Group's risk profile or of control function employees. The principles and governance described above remain applicable within the Group.

In addition, Societe Generale has set up a specific system and governance related to trading mandate-holders, intended to

ensure that the remuneration policy complies with the requirements of the French Act of 26<sup>th</sup> July 2013 on the separation and regulation of banking activities and of the Volcker Rule.

#### REPUTATIONAL RISKS

Every quarter, the Compliance Division, using information from the core businesses and Corporate Divisions, in particular the Human Resources and Communication Division, draws up a reputational risk dashboard. This dashboard is communicated quarterly to the members of the Compliance Committee and of the Board's Risk Committee.

Moreover, the business line compliance officers are members of various bodies (new product Committees, ad hoc Committees, etc.) organised to approve new types of transactions, products, projects or clients, and must prepare a written statement on their assessment of the level of risk, especially reputational risk, involved in the initiative discussed.

#### 2.6 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 specific scenarios within defined scopes. The assessment combines expert analysis and various 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, they 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. The Group's stress test framework covers credit risk, market risk, operational risk, liquidity risk and structural interest rate and exchange rate risks.

Stress tests are based on extreme but plausible hypothetical economic scenarios defined by the Group's economists. 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).

As such, the stress test framework in place includes:

an annual global stress test, which is integrated into the budget process as part of preparing the Group Risk Appetite and ICAAP. It is used in particular to check the Group's compliance with the prudential ratios. It covers all of the Group's activities and is based on two global macroeconomic scenarios: a core budgetary macroeconomic scenario and a macroeconomic scenario of severe but plausible stress extrapolated on the basis of the core scenario. Each scenario is developed for a large number of countries or regions and incorporates a series of economic and financial variables. Each global scenario is consistent on two levels: consistency between national scenarios and consistency of trends in national aggregates for each individual country;

#### **RISK MAPPING FRAMEWORK AND STRESS TESTS**

- specific credit stress tests (on portfolios, countries, activities, etc.), performed on a regular basis as well as on request, which complement the global analysis with a more granular approach and allow fine-tuning of the identification, assessment and operational management of risk, including credit risk concentration;
- specific market stress tests, which estimate the loss resulting from an extreme change in market parameters (indexes, credit spreads, etc.). This stress test risk assessment is applied to all the Group's market activities. It is based on a set of historical (3) and hypothetical (15) scenarios, which apply shocks to all substantial risk factors, including exotic parameters (see the "Market risks" section of this report);
- operational risk stress tests, which use scenario analyses and the modelling of losses to calibrate the Group's capital in terms of operational risk, and which are used to assess the exposure to operational losses linked to the severity of economic scenarios, including exposure to rare and extreme losses not covered by the historical period;

- stress tests to analyse the Group's structural fixed-rate position value and interest rate margin sensitivity to structural interest rate risk. The Group measures these sensitivities to different interest rate yield curve configurations (steepening and flattening);
- liquidity stress tests to ensure that the time period over which the Group can continue to operate is respected in a stressed market environment;
- and finally, reverse stress tests, which are conducted to evaluate scenarios that may result in certain key indicators reaching potentially critical thresholds, such as the minimum solvency level as defined within the Group's risk appetite framework.

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.

INTERNAL CONTROL

#### 2.7 INTERNAL CONTROL

#### **Framework**

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 3<sup>rd</sup> 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.

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 any 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;

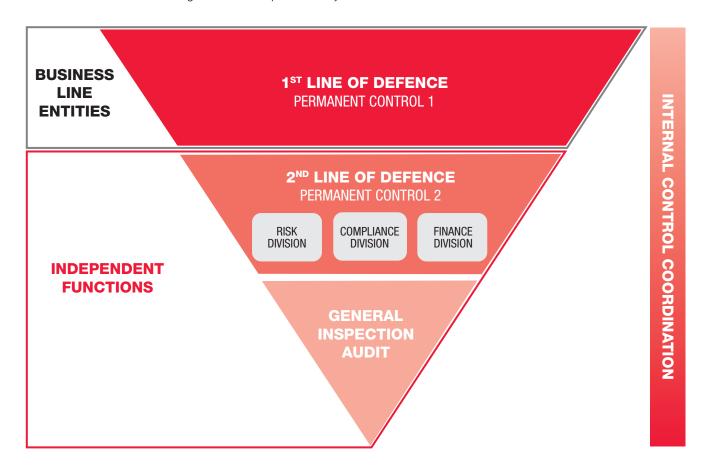
the second line of defence is provided by the compliance, finance and risk functions.

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 oversee that they are effectively implemented; they conduct second-level permanent control over all of the Group's risks, employing the controls they have established or that have been established by 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 9 times in 2017. It addressed the following issues:

- presentation of the tool aggregating and providing risk and control information;
- presentation of the enterprise architecture study on the control and risk management system;

- progress in placing Group processes under control and supervision;
- system for following up on outsourced essential services;
- quarterly results of the permanent control of the IS & ISS function;
- assessment of the implementation of the Group's principles on internal sanctions;
- changes in normative documentation;
- changes in the Risk function;
- annual review of the Risk Division;
- cybercrime risk and control;
- IT production risk and control;

- Private Banking review;
- French Retail Banking (RBDF) review.

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).

The Group defined the target organisation for the second-level control framework within the major International Retail Banking subsidiaries, creating a single team shared between the finance, risk and compliance functions.

#### FIRST-LEVEL PERMANENT CONTROL

Performed as part of operations, within the businesses and Corporate Divisions, first-level permanent control guarantees the security and quality of transactions and operations.

First-level permanent control consists of:

- risk prevention systems: these are security rules and controls – automated or otherwise – included in the processing of operations, or local controls included in operating procedures (the set of mechanisms that make up "operational controls");
- managerial supervision: line managers check the correct operation of systems under their responsibility. Managerial supervision controls that have been formalised mainly relate to the adaptation of key controls from among the library of normative controls. Managerial supervision may be based on controls carried out by dedicated teams, e.g. on the most sensitive processes requiring stricter or automated controls, or to avoid self-controlling practices, and/or where the sharing 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.

The second line of defence fulfils this role in two different ways:

- either through independent and formal "second pair of eyes" controls: for example, the independent review of credit files above a certain threshold, the independent review of limit breaches, or the independent validation of the calculation models used in risk management.
  - These "second pair of eyes" controls also satisfy an additional objective of the second line of defence, namely to provide an independent opinion on the most significant risk-taking decisions, and to provide expertise in the area of risk-taking;
- or through a "control of controls" to verify the suitability of the controls and the effectiveness and quality of first-level permanent control through the review of managerial supervision and operational controls (selective controls and/or sampling), and to detect any anomalies in the exercise of first-level controls and ensure appropriate follow-up through the first line of defence. These assessments are conducted based on sampling, through documentary controls and on-site testing.

This review results in the formulation, by second-level control teams, of a qualified opinion on the effectiveness of first-level controls for the scope considered.

Second-level permanent control within the Group is exercised by teams reporting to the Corporate Divisions responsible for the following functions:

- the Risk function, with regard to credit and market risks, structural risks and operational risks. The latter include risks which are specific to the different businesses (particularly fraud), as well as risks relating to sourcing, communication, real estate, human resources and IT processes and systems;
- the Finance function, with regard to the quality of accounting, regulatory and financial information;
- the Compliance function, where the second-level control concerns compliance controls, including legal and tax controls other than those of an accounting or operational nature.

#### 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, which reports to a "college" of Inspection Managing Directors (inspecteurs principaux), performs the verification tasks set out in the annual plan, while also conducting any studies or analyses required by General Management. It may be involved in the assessment of strategic projects. The General Inspection also supervises the roll-out of data-analysis initiatives within the scope of Inspection and Audit activities. This mission is carried out by a dedicated datalab (INS/DAT) under the responsibility of an Inspection Managing Director. The General Inspection also supervises and coordinates the Service Unit's relationship with regulators as third line of defence.

Audit Departments, supervised by an internal audit officer, each cover a designated scope of activity. A matrix organisation covers the main cross-disciplinary issues within the Group.

The COO function is in charge of the division's financial and operational steering. IGAD/COO carries out this role by providing various teams with financial and business reports and by conducting inspections on behalf of the Group Head of Inspection and Audit.

As the third line of defence, General Inspection and Internal Audit performs independent audits of the Group's operating entities, carried out in an objective, thorough and impartial manner in line with professional standards. IGAD covers all Group entities and activities and may focus on any aspect of their operations, without restriction. As part of its missions, IGAD verifies the compliance of transactions carried out, the level of risk actually incurred, the proper application of procedures, and the effectiveness and appropriate nature of the Group's permanent control system. IGAD also evaluates the risk awareness of the audited entity's management and assesses compliance with the Group's rules of conduct and expected professional practices.

In France, Internal Audit teams report hierarchically to the Group Head of Inspection and Audit. Internal Audit teams based in the Group's overseas affiliates or branches have a strong functional reporting link (control over recruitments, audit plans, audit assignments and monitoring) to IGAD management.

In order to fulfil IGAD's mandate, General Inspection and Internal Audit teams work together on the annual risk assessment in order 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 comprises six distinct Audit Departments aligned with the Group's organisation:

- French Retail Banking Audit handles the audit of French Retail Banking activities (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 responsible for 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 RESG. 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.

The Group Head of Inspection and Audit reports directly to the Group's Chief Executive Officer, with whom he has regular meetings. The Group Head of Inspection and Audit participates in General Management Committees, chaired by the Chief Executive Officer, in his areas of expertise.

The Group Head of Inspection and Audit meets with the Chairman of the Board of Directors on a regular basis, as well as with the chairpersons of the Audit and Internal Control Committee and Risk Committee respectively. He attends these Committees in line with Articles 10 and 11 of the Internal Rules of the Board of Directors.

On a regular basis, the Group Head of Inspection and Audit informs the Group's General Management as well as the Audit and Internal Control Committee of the main findings of IGAD's audits in order to provide an overview of risk management within the Group and the status of implementation of recommendations. IGAD also reports on the completion of the annual intervention plan. The annual intervention plan is approved by General Management and presented to the Audit and Internal Control Committee for validation once a year.

In all subsidiaries and countries where the Group is present, the local Head of IGAD is in regular contact with the Head of the local Group entity, members of the Audit Committees and local regulators in line with the rules and regulations applicable locally. IGAD is represented in the Internal Control Coordination Committees and Audit Committees at various Group levels.

Lastly, the Group Head of Inspection and Audit also presents the internal audit section of the Annual Report on Internal Control to the Audit and Internal Control Committee, as required by the provisions of the Order of 3<sup>rd</sup> November 2014.

The Group Head of Inspection and Audit is also in regular contact with the Group's Statutory Auditors.

IGAD also has regular discussions with regulators in its areas of expertise. At their request, IGAD provides the European Central Bank ("ECB") and the French Prudential Supervisory and Resolution Authority (Autorité de contrôle prudentiel et de résolution – ACPR) with reports on the completion of its work, the main findings of its audits and the monitored implementation of recommendations. The audit plan is presented annually to the ECB and ACPR.

# 2.8 CONTROL OF THE PRODUCTION AND PUBLICATION OF FINANCIAL AND MANAGEMENT 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 preparing 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 core businesses in a series of standardised reports. It consolidates and verifies this information so that it can be used in the Group's overall management 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 core businesses 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 core businesses 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 Risk Division is responsible for the Basel 3 approval process, including producing 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 (CRD4) and a regulation (CRR), which entered into force on 1st January 2014. Since then, several delegated and implementing acts have clarified the CRD4/CRR. Lastly, since the Societe Generale Group is considered a "financial conglomerate", it is subject to 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 Group entity 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 core business Finance Departments 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 separation of sales functions and all operational processing and operational monitoring functions ensures the quality and objectivity of the accounting and management data. As such, back offices and middle offices are integrated into the Resources Division, and the teams monitoring the production of results are integrated into the 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 reality of all information reported;
- reconciliation of accounting data with management data, within the specified deadlines using specific procedures;
- in market activities, reconciliation of the accounting result (produced by the Finance Division) with the daily economic result (produced by a department of dedicated experts 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 the 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 OF CORE BUSINESSES

The Finance Department of each subsidiary verifies the accuracy and consistency of the financial statements prepared in accordance with 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 the core businesses also help to ensure the quality and accuracy of financial statements falling within their scope of activity. As such, their main assignments in terms of accounting control are:

- to ensure each data producer has adequate resources in view of the challenges involved;
- to supervise the implementation of audit recommendations and the progress of the associated action plans;
- to define the procedures for implementing key controls and to certify their results on a quarterly basis.

# 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;
- communicating on incidents affecting the preparation of the financial statements, in order to issue warnings, 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 core businesses 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.

#### Accounting audit system

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

The operational staff monitors 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.

Within IGAD, a dedicated team is responsible for auditing the Finance Division and the finance function. Reporting to a dedicated business correspondent, this team coordinates and monitors all audits related to accounting and financial matters on a Group-wide basis. It 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.

#### CONTROL 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.

#### PREVENTATIVE 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 Generales'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 the work of authorities.

# CAPITAL MANAGEMENT AND ADEQUACY

# In brief

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

Evolution of CET1 capital

- EUR 0.8 bn

(between 2016 and 2017)

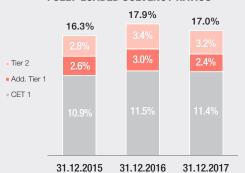
Evolution of total regulatory capital

- EUR 3.6 bn

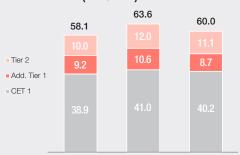
(between 2016 and 2017)

Fully-loaded CET1 ratio at end 2017

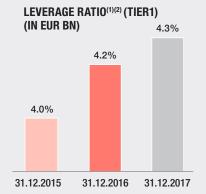
#### **FULLY-LOADED SOLVENCY RATIOS(1)**



#### **REGULATORY CAPITAL** (IN EUR BN)(1)



31.12.2015 31.12.2016 31.12.2017



- (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).

## 3.1 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 (GSIB), 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 are 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. The timeline is therefore likely to change.

The Basel Committee has also pushed back to 1<sup>st</sup> January 2022 the planned implementation date of the revised minimum capital requirements regarding market risk, which were initially set for implementation in 2019.

Furthermore, on 23<sup>rd</sup> November 2016 the Commission published its draft CCR2/CRD5 text. Most of the provisions will enter into force two years after the CCR2 becomes effective. Depending on the Trilogue, this may not happen before 2019 at the earliest. The final provisions will only be known following the European legislative procedure. Accordingly, the texts are likely to change.

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;
- Market risk reform FRTB;
- 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%).

Lastly, 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 2017. This level was set at 1.50% for Societe Generale.

Detailed information on the GSIB requirements and other prudential information is available at the Group's website, www.societegenerale.com, under "Registration Document" and "Pillar 3".

Throughout 2017, the Societe Generale Group complied with the minimum ratio requirements applicable to its activities.

## 3.2 SCOPE OF APPLICATION – PRUDENTIAL SCOPE

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

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

Non-regulated subsidiaries outside of the scope of consolidation are subject to periodic reviews, at least annually. Any differences with respect to legal capital requirements are adequately provisioned in the Group's consolidated financial statements.

#### TABLE 1: DIFFERENCE BETWEEN ACCOUNTING SCOPE AND PRUDENTIAL REPORTING SCOPE

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

| Type of entity   | Accounting treatment | Prudential treatment under CRR/CRD4                      |
|--|----------------------|--|
| Subsidiaries with a financial activity                       | Full consolidation   | Capital requirement based on the subsidiary's activities |
| Subsidiaries with an insurance activity                      | Full consolidation   | Weighted equity value                                    |
| Holdings, joint ventures with a financial 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 subsidiaries and holdings not associated with an insurance activity are grouped together on account of their non-material weight (<0.2%).

#### TABLE 2: RECONCILIATION OF THE CONSOLIDATED BALANCE SHEET AND THE ACCOUNTING BALANCE SHEET

| Consolidated<br>balance<br>sheet | restatements<br>linked<br>to insurance <sup>(1)</sup>  | restatements linked<br>to consolidation<br>methods  | Accounting<br>balance sheet<br>within the<br>prudential scope   | Cross Ref.<br>Table 6a<br>p.57   |
|----------------------------------|--|---|---|--|
| 114,404                          | 0  | 0   | 114,404   |  |
| 419,680                          | (46,889)   | 0   | 372,791   |  |
| 13,641                           | (399)  | 0   | 13,242  |  |
| 139,998                          | (84,706)   | 0   | 55,292  |  |
| 60,866                           | (7,104)  | 209   | 53,971  |  |
| 133                              | 0  | 0   | 133   | 1  |
| 395,587                          | 1,136  | 15  | 396,738   |  |
| 29,644                           | 0  | 0   | 29,644  |  |
| 663                              | 0  | 0   | 663   |  |
| 3,563                            | 0  | 0   | 3,563   |  |
| 6,001                            | (112)  | 0   | 5,889   |  |
| 2,970                            | 0  | (803)   | 2,167   | 2  |
| 1,795                            | 0  | 712   | 2,507   | 3  |
| 60,562                           | (2,466)  | 80  | 58,176  |  |
| 84                               | 0  | 0   | 84  | 4  |
| 13                               | 0  | 0   | 13  |  |
| 700                              | 3,952  | (64)  | 4,588   |  |
| 24,818                           | (767)  | 0   | 24,051  |  |
| 1,940                            | 0  | (129)   | 1,811   | 5  |
| 4,988                            | (325)  | 0   | 4,663   | 5  |
| 1,275,128                        | (137,680)  | 240   | 1,137,688   |  |
|                                  | balance sheet  114,404  419,680  13,641  139,998  60,866  133  395,587  29,644  663  3,563  6,001  2,970  1,795  60,562  84  13  700  24,818  1,940  4,988 | balance sheet         linked to insurance(1)           114,404         0           419,680         (46,889)           13,641         (399)           139,998         (84,706)           60,866         (7,104)           133         0           395,587         1,136           29,644         0           663         0           3,563         0           6,001         (112)           2,970         0           1,795         0           60,562         (2,466)           84         0           13         0           700         3,952           24,818         (767)           1,940         0           4,988         (325) | balance sheet         linked to insurance(1)         to consolidation methods           114,404         0         0           419,680         (46,889)         0           13,641         (399)         0           139,998         (84,706)         0           60,866         (7,104)         209           133         0         0           395,587         1,136         15           29,644         0         0           663         0         0           3,563         0         0           6,001         (112)         0           2,970         0         (803)           1,795         0         712           60,562         (2,466)         80           84         0         0           13         0         0           700         3,952         (64)           24,818         (767)         0           1,940         0         (129)           4,988         (325)         0 | balance sheet         linked to insurance(1)         to consolidation methods         within the prudential scope           114,404         0         0         114,404           419,680         (46,889)         0         372,791           13,641         (399)         0         13,242           139,998         (84,706)         0         55,292           60,866         (7,104)         209         53,971           133         0         0         133           395,587         1,136         15         396,738           29,644         0         0         29,644           663         0         0         663           3,563         0         0         3,563           6,001         (112)         0         5,889           2,970         0         (803)         2,167           1,795         0         712         2,507           60,562         (2,466)         80         58,176           84         0         0         84           13         0         0         13           700         3,952         (64)         4,588           24,818         (767) |

<sup>(1)</sup> Restatement of subsidiaries excluded from the prudential scope and reconsolidation of intra-group transactions related to its subsidiaries.

#### SCOPE OF APPLICATION - PRUDENTIAL SCOPE

| LIABILITIES at 31.12.2017 (In EUR m)  | Consolidated<br>balance<br>sheet | Prudential<br>restatements<br>linked<br>to insurance <sup>(1)</sup> | Prudential<br>restatements linked<br>to consolidation<br>methods | Accounting<br>balance sheet<br>within the<br>prudential scope | Cross Ref.<br>Table 6a<br>p.57 |
|---|----------------------------------|---|--|---|--------------------------------|
| Central banks   | 5,604                            | 0   | 0  | 5,604   |                                |
| Liabilities at fair value through profit or loss  | 368,705                          | 1,439   | 0  | 370,144   |                                |
| Hedging derivatives   | 6,750                            | 17  | 0  | 6,767   |                                |
| Amounts owed to credit institutions   | 88,621                           | (3,916)   | (14)   | 84,691  |                                |
| Amounts owed to clients   | 410,633                          | 1,807   | 120  | 412,560   |                                |
| Debt securities   | 103,235                          | 1,608   | 0  | 104,843   |                                |
| Revaluation reserve of interest-rate-hedged portfolios  | 6,020                            | 0   | 0  | 6,020   |                                |
| Tax liabilities   | 1,662                            | (373)   | 0  | 1,289   |                                |
| Other Liabilities   | 69,139                           | (6,445)   | 134  | 62,828  |                                |
| Debts related to Non-current assets held for sale   | 0                                | 0   | 0  | 0   |                                |
| Technical provisions of insurance companies   | 130,958                          | (130,958)   | 0  | 0   |                                |
| Provisions  | 6,117                            | (16)  | 0  | 6,101   |                                |
| Subordinated debts  | 13,647                           | 208   | 0  | 13,855  |                                |
| o.w. redeemable subordinated notes including revaluation differences on hedging items                 | 13,095                           | 204   | 0  | 13,299  | 6                              |
| TOTAL DEBTS   | 1,211,091                        | (136,629)   | 240  | 1,074,702   |                                |
| Equity  |                                  |   |  |   |                                |
| Equity, Group share   | 59,373                           | (203)   | 0  | 59,170  |                                |
| o.w. capital and related reserves   | 19,995                           | 0   | 0  | 19,995  | 7                              |
| o.w. other capital instruments  | 8,565                            | 0   | 0  | 8,565   | 8                              |
| o.w. retained earnings  | 5,280                            | 0   | 0  | 5,280   | 9                              |
| o.w. accumulated other comprehensive income (including gains and losses accounted directly in equity) | 22,727                           |   | 0  | 22,727  | 10                             |
| o.w. net income   | 2,806                            | (203)   | 0  | 2,603   | 11                             |
| Minority interests  | 4,664                            | (848)   | 0  | 3,816   | 12                             |
| TOTAL EQUITY  | 64,037                           | (1,051)   | 0  | 62,986  |                                |
| TOTAL LIABILITIES   | 1,275,128                        | (137,680)   | 240  | 1,137,688   |                                |

<sup>(1)</sup> Restatement of subsidiaries excluded from the prudential scope and reconsolidation of intra-group transactions related to its subsidiaries.

| <b>ASSETS at 31.12.2016</b> (In EUR m)   | Consolidated balance sheet | Adjustments linked to insurance <sup>(1)</sup> | Other adjustments<br>linked to<br>consolidation methods | Accounting balance<br>sheet within the<br>prudential scope |
|--|----------------------------|--|---|--|
| Cash and amounts due from Central Banks  | 96,186                     | (0)  | 0   | 96,186   |
| Financial assets at fair value through profit and loss**   | 500,215                    | (32,264)                                       | 48  | 467,999  |
| Hedging derivatives  | 18,100                     | (428)  | 0   | 17,672   |
| Available-for-sale assets  | 139,404                    | (75,302)                                       | 26  | 64,128   |
| Loans and advances to credit institutions  | 59,502                     | (7,342)  | 453   | 52,613   |
| o.w. subordinated loans to credit institutions   | 157                        | 0  | 0   | 157  |
| Loans and advances to clients  | 397,643                    | 897  | 0   | 398,540  |
| Lease financing and equivalent transactions  | 28,858                     | 0  | 0   | 28,858   |
| Revaluation of macro-hedged items  | 1,078                      | 0  | 0   | 1,078  |
| Financial assets held to maturity  | 3,912                      | 0  | 0   | 3,912  |
| Tax assets   | 6,421                      | (37)   | 2   | 6,386  |
| o.w. deferred tax assets that rely on future profitability excluding those arising from temporary differences* | 3,083                      | 0  | (878)   | 2,205  |
| o.w. deferred tax assets arising from temporary differences*   | 2,247                      | 0  | 853   | 3,100  |
| Other assets**   | 71,437                     | (622)  | (4)   | 70,811   |
| o.w. defined-benefit pension fund assets   | 59                         | 0  | 0   | 59   |
| Non-current assets held for sale   | 4,252                      | 0  | 0   | 4,252  |
| Investments in subsidiaries and affiliates accounted for by the equity method                                  | 1,096                      | 3,457  | (125)   | 4,428  |
| Tangible and intangible assets   | 21,783                     | (664)  | 1   | 21,120   |
| o.w. intangible assets exclusive of leasing rights   | 1,717                      | 0  | (72)  | 1,645  |
| Goodwill   | 4,535                      | 0  | 4   | 4,539  |
| TOTAL ASSETS   | 1,354,422                  | (112,305)                                      | 405   | 1,242,522  |

<sup>(1)</sup> Restatement of subsidiaries outside the prudential reporting scope and reconsolidation of intra-group transactions related to its subsidiaries.

<sup>\*</sup> The consolidated amounts of deferred tax assets that rely on future profitability excluding those arising from temporary differences and deferred tax assets arising from temporary differences have been updated.

<sup>\*\*</sup> Amounts restated relative to the financial statements published in 2016, following a change in the presentation of premiums on options to be paid and received.

| <b>LIABILITIES at 31.12.2016</b> (In EUR m)   | Consolidated balance sheet | Adjustments linked to insurance <sup>(1)</sup> | Other adjustments<br>linked to<br>consolidation<br>methods | Accounting<br>balance sheet<br>within the<br>prudential scope |
|---|----------------------------|--|--|---|
| Central banks   | 5,238                      | -  | -  | 5,238   |
| Liabilities at fair value through profit or loss*   | 440,120                    | 1,102  | -  | 441,222   |
| Hedging derivatives   | 9,594                      | 2  | -  | 9,596   |
| Amounts owed to credit institutions   | 82,584                     | (1,310)  | 147  | 81,421  |
| Amounts owed to clients   | 421,002                    | 2,017  | -  | 423,019   |
| Debt securities   | 102,202                    | 4,586  | -  | 106,788   |
| Revaluation reserve of interest-rate-hedged portfolios  | 8,460                      | -  | -  | 8,460   |
| Tax liabilities   | 1,444                      | (317)  | 11   | 1,138   |
| Other liabilities*  | 81,893                     | (5,002)  | 247  | 77,138  |
| Debts related to non-current assets held for sale   | 3,612                      | -  | -  | 3,612   |
| Technical provisions of insurance companies   | 112,777                    | (112,777)                                      | -  | -   |
| Provisions  | 5,687                      | (23)   | 0  | 5,664   |
| Subordinated debts  | 14,103                     | 246  | -  | 14,349  |
| o.w. redeemable subordinated notes including revaluation differences on hedging items                 | 13,541                     | 241  | -  | 13,782  |
| TOTAL DEBTS   | 1,288,716                  | (111,476)                                      | 405  | 1,177,645   |
| Equity  |                            |  |  |   |
| Equity, Group share   | 61,953                     | (0)  | (0)  | 61,953  |
| o.w. capital and related reserves   | 19,986                     | -  | -  | 19,986  |
| o.w. other capital instruments  | 9,680                      | -  | -  | 9,680   |
| o.w. retained earnings  | 4,096                      | -  | -  | 4,096   |
| o.w. accumulated other comprehensive income (including gains and losses accounted directly in equity) | 24,317                     | -  | (0)  | 24,317  |
| o.w. net income   | 3,874                      | -  | -  | 3,874   |
| Minority interests  | 3,753                      | (829)  | 0  | 2,924   |
| TOTAL EQUITY  | 65,706                     | (829)  | (0)  | 64,877  |
| TOTAL LIABILITIES   | 1,354,422                  | (112,305)                                      | 405  | 1,242,522   |

<sup>(1)</sup> Restatement of subsidiaries outside the prudential reporting scope and reconsolidation of intra-group transactions related to its subsidiaries.

<sup>\*</sup> Amounts restated relative to the financial statements published in 2016, following a change in the presentation of premiums on options to be paid and received.

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

#### TABLE 3: SUBSIDIARIES 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 | France         |
| 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        |

Regulated financial subsidiaries 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 subsidiaries 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).

## 3.3 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.

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

| Issuance<br>Date | Currency | Issue<br>amount<br>(in<br>currency M) | First call date | Yield before<br>the call date<br>and frequency | Yield after<br>the call date<br>and frequency | Book value<br>at<br>31.12.2017 | Book value<br>at<br>31.12.2016 |
|------------------|----------|---------------------------------------|-----------------|--|---|--------------------------------|--------------------------------|
| 05.04.0007       | HCD      | 000 M                                 | 05.04.0017      | 3-months USD Libor                             | 0   | 0                              |                                |
| 05.04.2007       | USD      | 200 M                                 | 05.04.2017      | + 0.75% annually                               | 3-months USD Libor + 1.75% annually           | 0                              | 60                             |
| 05.04.2007       | USD      | 1,100 M                               | 05.04.2017      | 5.922% semi-annually                           | 3-months USD Libor + 1.75% annually           | 0                              | 766                            |
| 19.12.2007       | EUR      | 600 M                                 | 19.12.2017      | 6.999% annually                                | Euribor 3 months + 3.35% annually             | 0                              | 468                            |
| 16.06.2008       | GBP      | 700 M                                 | 16.06.2018      | 8.875 % annually                               | Libor 3 months + 3.40% annually               | 570                            | 590                            |
| 07.07.2008       | EUR      | 100 M                                 | 07.07.2018      | 7.715 % annually                               | Euribor 3 months + 3.70% annually             | 100                            | 100                            |
| 04.09.2009       | EUR      | 1,000 M                               | 04.09.2019      | 9.375 % annually                               | Euribor 3 months + 8.901% annually            | 1,000                          | 1,000                          |
| 06.09.2013       | USD      | 1,250 M                               | 29.11.2018      | 8.25 % annually                                | Mid Swap Rate USD 5 years + 6.394%            | 1,042                          | 1,186                          |
| 18.12.2013       | USD      | 1,750 M                               | 18.12.2023      | 7.875 % annually                               | Mid Swap Rate USD 5 years + 4.979%            | 1,459                          | 1,660                          |
| 07.04.2014       | EUR      | 1,000 M                               | 07.04.2021      | 6.75 % annually                                | Mid Swap Rate USD 5 years + 5.538%            | 1,000                          | 1,000                          |
| 25.06.2014       | USD      | 1,500 M                               | 27.01.2020      | 6% semi-annually                               | Mid Swap Rate USD 5 years + 4.067%            | 1,251                          | 1,423                          |
| 29.09.2015       | USD      | 1,250 M                               | 29.09.2025      | 8% semi-annually                               | Mid Swap Rate USD 5 years + 5.873%            | 1,042                          | 1,186                          |
| 13.09.2016       | USD      | 1,500 M                               | 13.09.2021      | 7.375% semi-annually                           | Mid Swap Rate USD 5 years + 6.238%            | 1,251                          | 1,423                          |
| TOTAL            |          |                                       |                 |  |   | 8,715                          | 10,862                         |

## **Tier 2 Capital**

Tier 2 capital includes:

- undated deeply subordinated notes;
- dated subordinated notes;
- any positive difference between (i) the sum of value adjustments and collective 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 general 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).

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

| (In EUR m)                           | 31.12.2016 | Issues | Redemptions | Prudential<br>supervision<br>valuation haircut | Others  | 31.12.2017 |
|--------------------------------------|------------|--------|-------------|--|---------|------------|
| Debt instruments eligible for Tier 1 | 10,862     | 0      | (1,294)     | 0  | (853)   | 8,715      |
| Debt instruments eligible for Tier 2 | 13,039     | 656    | (4)         | (482)  | (821)   | 12,388     |
| TOTAL ELIGIBLE DEBT INSTRUMENTS      | 23,901     | 656    | (1,298)     | (482)  | (1,674) | 21,103     |

## **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.

In 2018, based on the various regulatory buffers but excluding countercyclical buffer, the phased-in Common Equity Tier 1 (CET1) ratio that triggers the maximum distributable amount mechanism will be 8.625%. The G-SIB buffer imposed by the Financial Stability Board (FSB) is equal to 0.75% and will be increased by 0.25% per annum, ultimately reaching 1% in 2019.

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 1<sup>st</sup> January 2016, generally lies between 0% and 2.5% by country, with a transitional period where the rate is capped (0.625% in 2016, 1.25% in 2017 and 1.875% in 2018).

#### TABLE 6: BREAKDOWN OF PRUDENTIAL CAPITAL REQUIREMENT FOR SOCIETE GENERALE AS AT 01.01.2018 (IN %) - PHASED-IN RATIO

| (In %)                                      | 01.01.2018 | 01.01.2017 |
|---|------------|------------|
| Minimum requirement for Pillar 1            | 4.50%      | 4.50%      |
| Minimum requirement for Pillar 2 (P2R)      | 1.50%      | 1.50%      |
| Minimum requirement for conservation buffer | 1.88%      | 1.25%      |
| Minimum requirement for systemic buffer     | 0.75%      | 0.50%      |
| MINIMUM REQUIREMENT FOR CET1 RATIO          | 8.63%      | 7.75%      |

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

| (In EUR m)  | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Shareholders' equity (IFRS), Group share  | 59,373     | 61,953     |
| Deeply subordinated notes   | (8,521)    | (10,663)   |
| Perpetual subordinated notes  | (269)      | (297)      |
| Group consolidated shareholders' equity net of deeply subordinated and perpetual subordinated notes                       | 50,583     | 50,993     |
| Non-controlling interests   | 3,529      | 2,623      |
| Intangible assets   | (1,795)    | (1,626)    |
| Goodwill  | (4,829)    | (4,709)    |
| Dividends proposed (to the General Meeting) and interest expenses on deeply subordinated and perpetual subordinated notes | (1,880)    | (1,950)    |
| Deductions and regulatory adjustments   | (5,381)    | (4,394)    |
| Common Equity Tier 1 capital  | 40,227     | 40,937     |
| Deeply subordinated notes and preferred shares  | 8,715      | 10,862     |
| Other additional Tier 1 capital   | 101        | (113)      |
| Additional Tier 1 deductions  | (136)      | (138)      |
| Total Tier 1 capital  | 48,907     | 51,548     |
| Tier 2 instruments  | 12,388     | 13,039     |
| Other Tier 2 capital  | 425        | 374        |
| Tier 2 deductions   | (1,686)    | (1,400)    |
| Total regulatory capital  | 60,034     | 63,561     |
| Total risk-weighted assets  | 353,306    | 355,478    |
| Credit risk-weighted assets   | 289,511    | 294,220    |
| Market risk-weighted assets   | 14,800     | 16,873     |
| Operational risk-weighted assets  | 48,995     | 44,385     |
| Solvency ratios   |            |            |
| Common Equity Tier 1 ratio  | 11.4%      | 11.5%      |
| Tier 1 ratio  | 13.8%      | 14.5%      |
| Total capital ratio   | 17.0%      | 17.9%      |

The phased-in CRR/CRD4 solvency ratio at 31<sup>st</sup> December 2017 stood at 11.6% in Common Equity Tier 1 (11.8% at 31<sup>st</sup> December 2016), and 14.0% in Tier 1 (14.8% at 31<sup>st</sup> December 2016) for a total ratio of 17.2% (18.2% at 31<sup>st</sup> December 2016).

Group shareholders' equity at 31st December 2017 totalled EUR 59.4 billion (compared to EUR 62 billion at 31st December 2016).

After taking into account non-controlling interests and regulatory adjustments, phased-in CET1 regulatory capital was EUR 40.9 billion at 31st December 2017, vs. EUR 42.0 billion at 31st December 2016.

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)   | 31.12.2017 | 31.12.2016 |
|--|------------|------------|
| (III LOIT III)   | 31.12.2017 | 31.12.2010 |
| Unrecognised minority interests                                | (1,957)    | (1,102)    |
| Deferred tax assets  | (2,102)    | (2,123)    |
| Prudent Valuation Adjustment                                   | (785)      | (746)      |
| Adjustments related to changes in the value of own liabilities | 531        | 468        |
| Others   | (1,068)    | (891)      |
| TOTAL CET1 REGULATORY DEDUCTIONS AND ADJUSTMENTS               | (5,381)    | (4,394)    |

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 collective 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.

#### Changes in the fully-loaded Common Equity Tier One (CET1) Ratio

The fully-loaded Common Equity Tier 1 ratio, calculated according to CRR/CRD4 rules, including the Danish compromise for insurance activities, amounted to 11.4% at 31st December 2017, *versus* 11.5% at 31st December 2016.

## 3.4 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.

The following table is defined by the European Banking Authority (EBA) as part of the revision of Pillar 3. It is specified that two

changes have been made to this table as compared to the version published last year, in order to align it with the target format:

- the credit risk in the standard method no longer includes exposures below the deduction thresholds and subject to a weighting of 250% (separate line);
- total counterparty risk includes contributions to the default fund of a central counterparty.

#### TABLE 9: GROUP CAPITAL REQUIREMENTS AND RISK-WEIGHTED ASSETS

|   | RV         | VA         | Minimum<br>capital<br>requirements |
|---|------------|------------|------------------------------------|
| (In EUR m)  | 31.12.2017 | 31.12.2016 | 31.12.2017                         |
| Credit risk (excluding counterparty credit risk)                            | 250,774    | 250,692    | 20,062                             |
| o.w. standardised approach  | 97,408     | 96,165     | 7,793                              |
| o.w. Foundation IRB (F-IRB) approach  | 4,483      | 3,998      | 359                                |
| o.w. Advanced IRB (A-IRB) approach  | 131,373    | 133,241    | 10,510                             |
| o.w. equity IRB under the simple risk-weighted approach or IMA              | 17,511     | 17,288     | 1,401                              |
| Counterparty credit risk  | 28,479     | 31,758     | 2,278                              |
| o.w. risk exposure for contributions to the default fund of a CCP           | 1,163      | 899        | 93                                 |
| o.w. CVA  | 3,760      | 5,089      | 301                                |
| Settlement risk   | 2          | 8          | 0                                  |
| Securitisation exposures in the banking book (after cap)                    | 1,779      | 1,821      | 142                                |
| o.w. IRB approach   | 114        | 154        | 9                                  |
| o.w. IRB supervisory formula approach (SFA)                                 | 4          | 27         | 0                                  |
| o.w. internal assessment approach (IAA)                                     | 1,461      | 1,380      | 117                                |
| o.w. standardised approach  | 200        | 260        | 16                                 |
| Market risk   | 14,800     | 16,873     | 1,184                              |
| o.w. standardised approach  | 1,384      | 1,238      | 111                                |
| o.w. IMA  | 13,416     | 15,635     | 1,073                              |
| Large exposures   |            |            |                                    |
| Operational risk  | 48,995     | 44,385     | 3,920                              |
| o.w. basic indicator approach   | 0          | 0          | 0                                  |
| o.w. standardised approach  | 3,020      | 3,071      | 242                                |
| o.w. advanced measurement approach  | 45,975     | 41,314     | 3,678                              |
| Amounts below the thresholds for deduction (subject to 250% risk-weighting) | 8,477      | 9,940      | 678                                |
| Floor adjustment  | 0          | 0          | 0                                  |
| TOTAL   | 353,306    | 355,478    | 28,264                             |

## Change in risk-weighted assets and capital requirements

The following table presents the risk-weighted assets by pillar (fully loaded).

## TABLE 10: RISK-WEIGHTED ASSETS (RWA) BY PILLAR AND RISK TYPE

| (In EUR bn)   | Credit | Market | Operational | Total 2017 | Total 2016 |
|---|--------|--------|-------------|------------|------------|
| French Retail Banking                               | 94.8   | 0.0    | 5.6         | 100.5      | 97.3       |
| International Retail Banking and Financial Services | 109.0  | 0.1    | 7.7         | 116.8      | 112.7      |
| Global Banking and Investor Solutions               | 77.6   | 14.5   | 32.0        | 124.0      | 131.0      |
| Corporate Centre                                    | 8.1    | 0.2    | 3.6         | 12.0       | 14.4       |
| GROUP   | 289.5  | 14.8   | 49.0        | 353.3      | 355.5      |

At 31  $^{\rm st}$  December 2017, RWA (EUR 353.3 billion) broke down as follows:

- credit risk accounted for 82% of RWA (of which 38% for International Retail Banking and Financial Services);
- market risk accounted for 4% of RWA (of which 98% for Global Banking and Investor Solutions);
- operational risk accounted for 14% of RWA (of which 65% for Global Banking and Investor Solutions).

#### INFORMATION RELATIVE TO KEY SUBSIDIARIES' CONTRIBUTIONS TO THE GROUP'S RISK-WEIGHTED ASSETS

The contributions of the three key subsidiaries collectively contributing more than 10% of the Group's risk-weighted assets are as follows:

## TABLE 11: KEY SUBSIDIARIES' CONTRIBUTION TO THE GROUP'S RISK-WEIGHTED ASSETS

|                                    | Crédit d | u Nord   | Rosb | ank      | Komerčni | Banka    |
|------------------------------------|----------|----------|------|----------|----------|----------|
| (In EUR m)                         | IRB      | Standard | IRB  | Standard | IRB      | Standard |
| Credit and counterparty risk       | 17,077   | 2,404    | 809  | 6,933    | 10,842   | 1,498    |
| Sovereign                          | 0        | 23       | 748  | 29       | 405      | 7        |
| Financial institutions             | 73       | 28       | 0    | 744      | 582      | 20       |
| Corporate                          | 9,507    | 599      | 0    | 4,668    | 6,229    | 1,026    |
| Retail                             | 5,902    | 698      | 0    | 1,100    | 3,500    | 20       |
| Equity investments                 | 1,595    | 238      | 60   | 0        | 125      | 0        |
| Other non-credit obligation assets | 0        | 819      | 0    | 392      | 0        | 426      |
| Market risk                        | 2        | 28       | 1    | 101      | 1        | 2        |
| Operational risk                   | 1,22     | 20       | 8    | 355      | 40       | 16       |
| TOTAL 2017                         | 20,72    | 29       | 8,6  | 98       | 12,75    | 8        |
| TOTAL 2016                         | 20,32    | 22       | 9,1  | 36       | 13,55    | 6        |

## 3.5 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.

At 31st December 2017, the Group's Common Equity Tier 1 ratio was 11.4% (fully loaded) and 11.6% (phased-in).

In 2017, 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 61% of total business loans and receivables) and credit risks (representing 82% of the Group's risk-weighted assets) accounting for the largest share.

At 31<sup>st</sup> December 2017, the Group's risk-weighted assets were down 0.62% to EUR 353.3 billion, compared to EUR 355.5 billion at end-December 2016.

## 3.6 LEVERAGE RATIO MANAGEMENT

The Group manages its leverage effect according to the CRR leverage ratio rules, as amended by the delegated act of  $10^{th}$  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. The leverage ratio is in an

observation phase in order to set the minimum requirements. Once they have been set, the Group's target will be adjusted as needed.

At the end of 2017, Societe Generale's leverage ratio was 4.3% (compared with 4.2% at end-2016). Return on assets (*i.e.* net income divided by the balance sheet total as per the consolidated financial statements) for Societe Generale stood at 0.22% in 2017 and 0.31% in 2016. On a prudential basis (fully-loaded), this ratio was 0.23% in 2017 and 0.31% in 2016, calculated by dividing the Group net income reflected in Table 2, page 41 by the balance sheet total for prudential purposes (Table 2, page 41).

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

| (In EUR m)   | 31.12.2017 | 31.12.2016 |
|--|------------|------------|
| Tier 1 capital <sup>(1)</sup>  | 48,907     | 51,548     |
| Total assets in prudential balance sheet <sup>(2)</sup>  | 1,137,688  | 1,242,522* |
| Adjustments for fiduciary assets recognised on the balance sheet but excluded from the leverage ratio exposure | 0          | 0          |
| Adjustments for derivative financial instruments   | (61,148)   | (84,012)*  |
| Adjustments for securities financing transactions <sup>(3)</sup>   | (9,035)    | (22,029)   |
| Off-balance sheet exposure (loan and guarantee commitments)  | 93,055     | 90,602     |
| Technical and prudential adjustments (Tier 1 capital prudential deductions)                                    | (10,716)   | (10,232)   |
| Leverage ratio exposure  | 1,149,844  | 1,216,851  |
| CRR fully loaded leverage ratio <sup>(4)</sup>   | 4.3%       | 4.2%       |

- (1) Capital overview is available in Table 5: Risk-based capital and Basel 3 solvency ratio.
- (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).
- \* Amounts restated relative to the financial statements published in 2016, following a change in the presentation of premiums on options to be paid and received.

### 3.7 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%).

### 3.8 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 2017, the Societe Generale Group's financial conglomerate equity covered the solvency requirements for both

banking activities and insurance activities. At 31st December 2016, the financial conglomerate ratio was 220%, consisting of a numerator ("Own funds of the Financial Conglomerate") of EUR 68.4 billion, and a denominator ("Regulatory requirement of the Financial Conglomerate") of EUR 31.1 billion.

## 3.9 APPENDIX: DETAIL OF CAPITAL AND CAPITAL ADEQUACY

## **Own funds details**

TABLE 6A: REGULATORY OWN FUNDS AND CRR/CRD4 SOLVENCY RATIOS (DETAILS OF TABLE 6)

|   | 2016            | 201             | 17            | Cross ref.<br>Table 2,<br>p. 41-42 | Cross Ref.<br>Table 6b<br>p. 59 | Cross<br>Ref<br>notes |
|---|-----------------|-----------------|---------------|------------------------------------|---------------------------------|-----------------------|
| (In EUR m)  | Fully<br>Loaded | Fully<br>Loaded | Phased-<br>In |                                    |                                 |                       |
| Common Equity Tier 1 capital (CET1): Instruments and reserves   | 51,891          | 51,755          | 52,016        |                                    | 6                               |                       |
| of which capital instruments and the related share premium accounts   | 19,986          | 19,995          | 19,995        | 7                                  | 1                               |                       |
| of which retained earnings  | 4,096           | 5,280           | 5,280         | 9                                  | 2                               |                       |
| of which accumulated other comprehensive income (and other reserve, to include unrealised gains and losses under the applicable accounting standards)   | 24,363          | 23,982          | 23,982        | 10                                 | 3                               | 1                     |
| of which minority interests (amounts allowed in consolidated CET1)  | 1,522           | 1,572           | 1,833         | 12                                 | 5                               | 2                     |
| of which independtly reviewed interim profits net of any forseeable charge or dividend  | 1,924           | 926             | 926           | 11                                 | 5a                              |                       |
| Common Equity Tier 1 capital (CET1): Regulatory adjustments   | (10,954)        | (11,528)        | (11,155)      |                                    | 28                              |                       |
| of which additional value adjustments (negative amount)   | (746)           | (785)           | (777)         |                                    | 7                               |                       |
| of which intangible assests (net of related tax liabilities)  | (6,334)         | (6,625)         | (6,625)       | 5                                  | 8                               | 3                     |
| of which deferred tax assets that rely on future profitability excluding those arising from temporary differences   | (2,123)         | (2,102)         | (1,637)       | 2                                  | 10                              | 4                     |
| of which fair value reserves related to gains or losses on cash flow hedges   | (73)            | 1               | 1             |                                    | 11                              | 5                     |
| of which negative amounts resulting from the calculation of expected loss amounts   | (667)           | (868)           | (868)         |                                    | 12                              |                       |
| of which gains or losses on liabilities valued at fair value resulting from<br>changes in own credit standing   | 468             | 531             | 531           |                                    | 14                              | 6                     |
| of which defined-benefit pension fund assets (negative amount)  | (43)            | (60)            | (48)          | 4                                  | 15                              | 7                     |
| of which direct and indirect holdings by an institution of own CET1 instruments (negative amount)   | (1,360)         | (1,362)         | (1,355)       |                                    | 16                              |                       |
| of which exposure amount of the items which qualify for a risk weight of 1250% where the institution opts for the deduction alternative   | (34)            | (24)            | (24)          |                                    | 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               | (119)         |                                    | 26a                             |                       |
| of which other elements of Common Equity Tier 1 capital or deductions - others  | (43)            | (234)           | (234)         |                                    | 26b                             |                       |
| Common Equity Tier 1 capital (CET1)   | 40,937          | 40,227          | 40,861        |                                    | 29                              |                       |
| Additionnal Tier 1 (AT1) capital: Instruments   | 10,749          | 8,816           | 8,796         |                                    | 36                              |                       |
| of which capital instruments and the related share premium accounts   | 7,878           | 7,045           | 7,045         | 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   | 2,985           | 1,670           | 1,670         | 8                                  | 33                              | 8                     |
| of which qualifying Tier 1 capital included in consolidated AT1 (including<br>minority interests not included in row 5) issued by subsidiaries and held by<br>third parties   | (114)           | 101             | 81            | 12                                 | 34                              | 9                     |
| Additionnal Tier 1 (AT1) capital: Regulatory adjustments  | (138)           | (136)           | (143)         |                                    | 43                              |                       |
| of which direct and indirect holdings by an institution of own AT1 instruments (negative amount)  | (125)           | (125)           | (132)         |                                    | 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) | (13)            | (11)            | (11)          | 1                                  | 40                              | 10                    |

|   | 2016            | 2017            |               | Cross ref.<br>Table 2,<br>p. 41-42 | Cross Ref.<br>Table 6b<br>p. 59 | Cross<br>Ref.<br>notes |
|---|-----------------|-----------------|---------------|------------------------------------|---------------------------------|------------------------|
| (In EUR m)  | Fully<br>Loaded | Fully<br>Loaded | Phased-<br>In |                                    |                                 |                        |
| Additionnal Tier 1 (AT1) capital  | 10,611          | 8,680           | 8,653         |                                    | 44                              |                        |
| Tier 1 capital (T1 = CET1 + AT1)  | 51,548          | 48,907          | 49,514        |                                    | 45                              |                        |
| Tier 2 capital (T2): Instruments and provisions   | 12,013          | 11,127          | 11,100        |                                    | 58                              |                        |
| of which capital instruments and the related share premium accounts   | 12,742          | 12,119          | 12,119        | 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   | 297             | 269             | 269           | 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  | 47              | 139             | 112           | 12                                 | 48                              | 12                     |
| of which credit risk adjustments  | 477             | 436             | 436           |                                    | 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) | (1,400)         | (1,686)         | (1,686)       | 1                                  | 55                              |                        |
| Tier 2 capital (T2)   | 12,013          | 11,127          | 11,100        |                                    | 58                              |                        |
| Total capital (TC= T1 + T2)   | 63,561          | 60,034          | 60,614        |                                    | 59                              |                        |
| Total risk weighted assets  | 355,478         | 353,306         | 353,306       |                                    | 60                              |                        |
| Ratio Common Equity Tier 1  | 11.5%           | 11.4%           | 11.6%         |                                    | 61                              |                        |
| Ratio Tier 1  | 14.5%           | 13.8%           | 14.0%         |                                    | 62                              |                        |
| Ratio Total capital   | 17.9%           | 17.0%           | 17.2%         |                                    | 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

- 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.
- 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.

 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 6B: TRANSITIONAL OWN FUNDS DISCLOSURE TEMPLATE

(In EUR m)

| Ref.  |   | Amount at disclosure date | Transitional provisions |
|-------|---|---------------------------|-------------------------|
|       | N EQUITY TIER 1 (CET1) CAPITAL: INSTRUMENTS AND RESERVES  |                           |                         |
| 1     | Capital instruments and the related share premium accounts  | 19,995                    |                         |
| 2     | Retained earnings   | 5,280                     |                         |
|       | Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the  |                           |                         |
| 3     | applicable accounting standards)  | 23,982                    |                         |
| 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)  | 1,572                     | 261                     |
| 5a    | Independently reviewed interim profits net of any foreseeable charge or dividend  | 926                       |                         |
| 6     | COMMON EQUITY TIER 1 (CET1) CAPITAL BEFORE REGULATORY ADJUSTMENTS   | 51,755                    | 261                     |
| соммо | N EQUITY TIER 1 (CET1) CAPITAL: REGULATORY ADJUSTMENTS  |                           |                         |
| 7     | Additional value adjustments (negative amount)  | (785)                     | 8                       |
| 8     | Intangible assets (net of related tax liability) (negative amount)  | (6,625)                   |                         |
| 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)   | (2,102)                   | 465                     |
| 11    | Fair value reserves related to gains or losses on cash flow hedges  | 1                         |                         |
| 12    | Negative amounts resulting from the calculation of expected loss amounts  | (868)                     |                         |
| 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   | 531                       |                         |
| 15    | Defined-benefit pension fund assets (negative amount)   | (60)                      | 12                      |
| 16    | Direct and indirect holdings by an institution of own CET1 instruments (negative amount)  | (1,362)                   | 7                       |
| 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   | (24)                      |                         |
| 20h   | of which: qualifying holdings outside the financial sector (negative amount)  | 0                         |                         |
| 200   | of which: securitisation positions (negative amount)  | (24)                      |                         |
| 200   | 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   | 931                       |                         |
| 24    | Empty set in the EU   | 0                         |                         |
| 25    | of which: deferred tax assets arsing from temporary differences   | 2,460                     |                         |
| 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   | 0                         | (119)                   |

#### (In EUR m)

| Ref.     |   | Amount at disclosure date | Transitional provisions |
|----------|---|---------------------------|-------------------------|
| 26a      | Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468   | 0                         | (119)                   |
|          | of which: filter for unrealised loss 1  | 0                         |                         |
|          | of which: filter for unrealised loss 2  | 0                         |                         |
|          | of which: filter for unrealised gain 1  | 0                         | (37)                    |
|          | of which: filter for unrealised gain 2  | 0                         | (83)                    |
| 26b      | Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR   | (234)                     |                         |
| 27       | Qualifying AT1 deductions that exceed the AT1 capital of the institution  | 0                         |                         |
| 28       | Total regulatory adjustment to Common Equity Tier 1 (CET1)  | (11,528)                  | 373                     |
| 29       | COMMON EQUITY TIER 1 (CET1) CAPITAL   | 40,227                    | 634                     |
| ADDITIO  | NAL TIER 1 (AT1) CAPITAL: INSTRUMENTS   |                           |                         |
| 30       | Capital instruments and the related share premium accounts  | 7,045                     |                         |
| 31       | of which: classified as equity under applicable accounting standards  | 7,045                     |                         |
| 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  | 1,670                     |                         |
| 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  | 101                       | (20)                    |
| 35       | of which: instruments issued by subsidiaries subject to phase out   | 0                         |                         |
| 36       | Additional Tier 1 (AT1) capital before regulatory adjustments   | 8,816                     | (20)                    |
| ADDITIO  | NAL TIER 1 (AT1) CAPITAL: REGULATORY ADJUSTMENTS  |                           |                         |
| 37       | Direct and indirect holdings by an institution of own AT1 instruments (negative amount)   | (125)                     | (7)                     |
| 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)  | (11)                      |                         |
| 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, <i>e.g.</i> 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, <i>e.g.</i> 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                         |                         |
| 710      | 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                         |                         |
|          |   |                           | (7)                     |
| 43<br>44 | Total regulatory adjustments to Additional Tier 1 (AT1) capital   | (136)                     | (7)                     |
|          | Additional Tier 1 (AT1) capital   | 8,680                     | (27)                    |
| 45       | TIER 1 CAPITAL (T1= CET1+AT1)   | 48,907                    | 607                     |
|          | (2) CAPITAL: INSTRUMENTS AND PROVISIONS   | 10 110                    |                         |
| 46       | Capital instruments and the related share premium accounts  | 12,119                    |                         |
| 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   | 269                       |                         |
| 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   | 139                       | (27)                    |
| 49       | of which: instruments issued by subsidiaries subject to phase out   | 0                         | 0                       |

APPENDIX: DETAIL OF CAPITAL AND CAPITAL ADEQUACY

|  | Amount at disclosure date  | Transitional provisions  |
|--|--|--|
| Credit risk adjustments  | 436  |  |
| ·  | 12,963   | (27)   |
|  | ,  |  |
|  | (150)  |  |
| 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  |  |
| 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  |  |
| of which new holdings not subject to transitional arrangements   | 0  |  |
| of which holdings existing before 1st January 2013 and subject to transitional arrangements  | 0  |  |
| 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)   | (1,686)  |  |
| 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  |  |
| 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, <i>e.g.</i> Material net interim losses, intangibles, shortfall of provisions to expected losses, etc.  | 0  |  |
| 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  |  |
| Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre-CRR  | 0  |  |
|  | 0  |  |
|  | 0  |  |
| <u> </u>   | (1.836)  | (  |
|  |  | (27)   |
| · / ·  |  | 580  |
| 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  | (  |
| TOTAL RISK WEIGHTED ASSETS   | 353,306  | C  |
| RATIOS AND BUFFERS   | •  |  |
| Common Equity Tier 1 (as a percentage of risk exposure amount)   | 11.4%  | 11.6%  |
| Tier 1 (as a percentage of risk exposure amount)   | 13.8%  | 14.0%  |
| Total capital (as a percentage of risk exposure amount)  | 17.0%  | 17.2%  |
| 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)  | 6,357  |  |
|  |  |  |
| ,  |  |  |
| of which: capital conservation buffer requirement  | 4,416  |  |
| of which: capital conservation buffer requirement of which: countercyclical buffer requirement   |  |  |
| of which: capital conservation buffer requirement of which: countercyclical buffer requirement of which: systemic risk buffer requirement  | 4,416<br>174<br>0  |  |
| of which: capital conservation buffer requirement of which: countercyclical buffer requirement of which: systemic risk buffer requirement of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (0-SII) buffer   | 4,416<br>174<br>0<br>1,767   |  |
| of which: capital conservation buffer requirement of which: countercyclical buffer requirement of which: systemic risk buffer requirement of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)  | 4,416<br>174<br>0  |  |
| of which: capital conservation buffer requirement of which: countercyclical buffer requirement of which: systemic risk buffer requirement of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (0-SII) buffer   | 4,416<br>174<br>0<br>1,767   |  |
|  | cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)  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)  of which new holdings not subject to transitional arrangements  of which holdings existing before 1 <sup>st</sup> January 2013 and subject to transitional arrangements  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)  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)  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.  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.  Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre-CRR of which: filter for unrealised losses  of which: filter for unrealised losses  of which: filter for unrealised forms CET1 (Regulation (EU) No 575/2013 residual amounts) (items to be det | Treat 2 (72) CAPITAL BEFORE REGULATORY ADJUSTMENTS  12,963  27) CAPITAL: REGULATORY ADJUSTMENTS  Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)  (150) Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to initiate artificially the own funds of the institution (negative amount)  Or Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities have reciprocal cross holdings with the institution designed to initiate artificially the own funds of the institution (negative amount)  Or price 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)  Or which new holdings not subject to transitional arrangements  O 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 (not of eligible short positions) (negative amount)  (1,686)  Regulatory adjustments applied to Tier 2 in respect of amounts subject to pre-CPR treatment and transitional prenaments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)  Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to Article 475 of Regulation (EU) No 575/2013 (i.e. CRR residual amounts)  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 tiems to be detailed line by line, e.g. Reciprocal cross holdings in Tier 2 instruments, direct holdings of non-significant inv |

#### (In EUR m)

| Ref.   |  | Amount at disclosure date | Transitional provisions |
|--------|--|---------------------------|-------------------------|
| CAPITA | L 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)                   | 2,954                     |                         |
| 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) | 931                       |                         |
| 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)  | 2,460                     |                         |
| APPLIC | ABLE 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)  | 437                       |                         |
| 77     | Cap on inclusion of credit risk adjustments in T2 under standardised approach  | 112,885                   |                         |
| 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  | 170,439                   |                         |
| CAPITA | L INSTRUMENTS SUBJECT TO PHASE-OUT ARRANGEMENTS (ONLY APPLICABLE BETWEEN 1 <sup>ST</sup> JANUARY 2014 AND 1 <sup>S</sup>   | T JANUARY 202             | 2)                      |
| 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   | 2,945                     |                         |
| 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  | 373                       |                         |
| 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 i | n)  | 31.12.2017 | 31.12.2016 |
|-----------|---|------------|------------|
| 1         | Total assets as per published financial statements  | 1,275,128  | 1,354,422  |
| 2         | Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation  | (137,440)  | (111,900)  |
| 3         | (Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013 "CRR") | -          | -          |
| 4         | Adjustments for derivative financial instruments  | (61,148)   | (84,012)   |
| 5         | Adjustments for securities financing transactions "SFTs"  | (9,035)    | (22,029)   |
| 6         | Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)  | 93,055     | 90,602     |
| 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)   | -          | -          |
| EU-6b     | (Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)   | -          | -          |
| 7         | Other adjustments   | (10,716)   | (10,232)   |
| 8         | Total leverage ratio exposure   | 1,149,844  | 1,216,851  |

## TABLE 12B: LEVERAGE RATIO COMMON DISCLOSURE (LRCOM)

| (In EUR m | 1)   | 31.12.2017      | 31.12.2016      |
|-----------|--|-----------------|-----------------|
| ON-BALA   | NICE SHEET EXPOSURES (EXCLUDING DERIVATIVES AND SFTS)  |                 |                 |
| 1         | On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)  | 816,358         | 838,223         |
| 2         | (Asset amounts deducted in determining Tier 1 capital)   | (10,716)        | (10,232)        |
| 3         | Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)                                   | 805,642         | 827,991         |
| DERIVAT   | IVE EXPOSURES  |                 |                 |
| 4         | Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)                                     | 15,059          | 19,403          |
| 5         | Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)  | 85,306          | 100,202         |
| 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)  | (16,649)        | (24,716)        |
| 8         | (Exempted CCP leg of client-cleared trade exposures)   | (9,624)         | (26,224)        |
| 9         | Adjusted effective notional amount of written credit derivatives   | 155,540         | 236,547         |
| 10        | (Adjusted effective notional offsets and add-on deductions for written credit derivatives)   | (136,497)       | (206,157)       |
| 11        | Total derivative exposures (sum of lines 4 to 10)  | 93,135          | 99,054          |
| SECURIT   | IES FINANCING TRANSACTION EXPOSURES  |                 |                 |
| 12        | Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions   | 237,706         | 258,513         |
| 13        | (Netted amounts of cash payables and cash receivables of gross SFT assets)   | (91,936)        | (71,805)        |
| 14        | Counterparty credit risk exposure for SFT assets   | 12,242          | 12,495          |
| 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)  | 158,012         | 199,204         |
| OTHER O   | FF-BALANCE SHEET EXPOSURES   |                 |                 |
| 17        | Off-balance sheet exposures at gross notional amount   | 194,061         | 185,844         |
| 18        | (Adjustments for conversion to credit equivalent amounts)  | (101,006)       | (95,242)        |
| 19        | Other off-balance sheet exposures (sum of lines 17 to 18)  | 93,055          | 90,602          |
| EXEMPTE   | ED 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   | 48,907          | 51,548          |
| 21        | Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)   | 1,149,844       | 1,216,851       |
| LEVERAG   | E RATIO  |                 |                 |
| 22        | Leverage ratio   | 4.3%            | 4.2%            |
| 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) |   | 31.12.2017 | 31.12.2016 |
|------------|---|------------|------------|
| EU-1       | Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:     | 816,358    | 838,223    |
| EU-2       | Trading book exposures  | 80,904     | 95,005     |
| EU-3       | Banking book exposures, of which:   | 735,454    | 743,218    |
| EU-4       | Covered bonds   | 0          | 0          |
| EU-5       | Exposures treated as sovereigns   | 205,086    | 193,090    |
| EU-6       | Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns | 13,499     | 13,666     |
| EU-7       | Institutions  | 43,322     | 51,964     |
| EU-8       | Secured by mortgages of immovable properties  | 13,773     | 14,414     |
| EU-9       | Retail exposures  | 174,577    | 165,756    |
| EU-10      | Corporate   | 191,121    | 184,330    |
| EU-11      | Exposures in default  | 19,939     | 10,535     |
| EU-12      | Other exposures (eg equity, securitisations, and other non-credit obligation assets)                  | 74,139     | 109,463    |

## TABLE 13: FULLY LOADED REGULATORY CAPITAL FLOWS

#### (In EUR m)

| Find COMC Common Finish Tier One Conited                    | 40.007  |
|---|---------|
| End-2016 Common Equity Tier One Capital                     | 40,937  |
| Change in share capital resulting from the capital increase | 0       |
| Net income, Group share                                     | (1,068) |
| Change in the provision for 2017 dividends                  | (4)     |
| Change linked to translation differences                    | (1,022) |
| Change in value of financial instruments                    | (242)   |
| Change in non-controlling interests                         | 906     |
| Change in goodwill and intangible assets                    | (289)   |
| Change in deductions  | (987)   |
| Other   | 1,996   |
| End-2017 Common Equity Tier 1 capital                       | 40,227  |
| End-2016 Additional Tier 1 capital                          | 10,611  |
| Change in debt instruments eligible for additional Tier 1   | (2,147) |
| Change in other additional Tier 1 capital                   | 214     |
| Change in deductions Tier 1                                 | 2       |
| End-2017 Additional Tier 1 capital                          | 8,680   |
| End-2016 Common Equity Tier 1 capital                       | 12,013  |
| Variation des instruments Tier 2                            | (651)   |
| Change in other additional Tier 2 capital                   | 51      |
| Change in deductions Tier 2                                 | (286)   |
| End-2017 Tier 2 capital                                     | 11,127  |

## **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 contra-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

contracyclical rate applicable to exhibitions in France and in charge of possibly recognising the rates applicable in other countries is the Haut Conseil de Stabilité Financière (HCSF). The HCSF publishes quarterly the CWB 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 not an annual rate of this cushion, but a rate applicable on a given date.

TABLE 14: GEOGRAPHICAL DISTRIBUTION OF CREDIT EXPOSURES RELEVANT FOR THE CALCULATION OF THE COUNTERCYCLICAL CAPITAL BUFFER (CCYB2)

|                       | 31.12.2017               |        |   |  |              |             |   |   |   |       |                   |                                    |            |          |
|-----------------------|--------------------------|--------|---|--|--------------|-------------|---|---|---|-------|-------------------|------------------------------------|------------|----------|
|                       | General credit exposures |        |   |  | Trading book | c exposures | Securitisation exposures                    |   | Own funds requirements                        |       |                   |                                    | _Own funds | Counter- |
|                       | Standard                 | IRB    | Sum of long and<br>short positions<br>of trading book<br>exposures for SA | Value of book<br>exposures<br>for internal<br>models | Standard     | IRB         | of which:<br>General<br>credit<br>exposures | of which:<br>Trading<br>book<br>exposures | of which:<br>Securiti-<br>sation<br>exposures | Total | require-<br>ments | cyclical<br>capital<br>buffer rate |            |          |
| Breakdown by country: |                          |        |   |  |              |             |   |   |   |       |                   |                                    |            |          |
| Czech<br>Republic     | 2,646                    | 21,681 |   | 4  |              |             | 896   | 0   |   | 896   | 4.280             | 0.500%                             |            |          |
| Norway                | 582                      | 2,836  |   | 19   |              |             | 176   | 0   |   | 176   | 0.842             | 2.000%                             |            |          |
| Slovakia              | 795                      | 464    |   | 0  |              |             | 76  | 0   |   | 76    | 0.365             | 0.500%                             |            |          |
| Sweden                | 440                      | 1,149  |   | 253  |              |             | 67  | 4   |   | 71    | 0.339             | 2.000%                             |            |          |
| Hong Kong             | 152                      | 1,101  |   | 35   |              |             | 39  | 2   |   | 41    | 0.196             | 1.250%                             |            |          |
| Iceland               | 0                        | 2      |   | -  |              |             | 0   | -   |   | 0     | 0.000             | 1.250%                             |            |          |
| TOTAL                 | 4,615                    | 27,233 |   | 311  |              |             | 1,254                                       | 6   |   | 1,260 |                   | 0.049%                             |            |          |

#### TABLE 15: COUNTERCYCLICAL BUFFER CAPITAL REQUIREMENTS - SYNTHESIS (CCYB1)

At 31st December 2017, six countries have a non-zero countercyclical buffer rate.

The countercyclical buffer requirement for 31st December 2017 for the Societe General Group is non-significant.

|   | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Total risk exposure amount                                      | 353,306    | 355,478    |
| Institution specific countercyclical capital buffer rate        | 0.049%     | 0.009%     |
| Institution specific countercyclical capital buffer requirement | 174        | 33         |

## Link between prudential balance sheet and type of risk

TABLEAU 16: DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND THE MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES (LI1)

| <b>ASSETS at 12.2017</b> (In EUR m)   | Consolidated<br>balance sheet | Prudential<br>restatements<br>linked to<br>insurance | Subject to credit risk | Subject to counterparty risk | Subject to<br>market risk | Subject to the securitisation framework |
|---|-------------------------------|--|------------------------|------------------------------|---------------------------|---|
| Cash and amounts due from Central Banks                                       | 114,404                       | 114,404  | 111,702                |                              |                           |   |
| Financial assets at fair value through profit and loss                        | 419,680                       | 372,791  | 21,978                 | 242,655                      | 360,861                   | 166                                     |
| Hedging derivatives   | 13,641                        | 13,242   |                        | 13,242                       | 3                         |   |
| Available-for-sale assets   | 139,998                       | 55,292   | 55,268                 |                              | 2,631                     |   |
| Loans and advances to credit institutions                                     | 60,866                        | 53,971   | 37,032                 | 16,522                       | 12,385                    | 0                                       |
| Loans and advances to clients   | 395,587                       | 396,738  | 376,724                | 21,004                       | 18,060                    | 309                                     |
| Lease financing and equivalent transactions                                   | 29,644                        | 29,644   | 29,644                 |                              |                           |   |
| Revaluation of macro-hedged items   | 663                           | 663  |                        |                              |                           |   |
| Financial assets held to maturity   | 3,563                         | 3,563  | 3,563                  |                              |                           |   |
| Tax assets  | 6,001                         | 5,889  | 5,889                  |                              | 118                       |   |
| Other assets  | 60,562                        | 58,176   | 39,995                 |                              | 12,092                    |   |
| Non-current assets held for sale  | 13                            | 13   |                        |                              |                           |   |
| Investments in subsidiaries and affiliates accounted for by the equity method | 700                           | 4,588  | 4,461                  |                              |                           |   |
| Tangible and intangible assets  | 24,818                        | 24,051   | 22,347                 |                              |                           |   |
| Goodwill  | 4,988                         | 4,663  |                        |                              |                           |   |
| TOTAL ASSETS  | 1,275,128                     | 1,137,688  | 708,603                | 293,424                      | 406,149                   | 475                                     |

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

| <b>LIABILITIES at 31.12.2017</b> (In EUR m)            | Consolidated balance sheet | Prudential<br>restatements<br>linked to<br>insurance | Subject to credit risk | Subject to counterparty risk | Subject to<br>market risk | Subject to the securitisation framework |
|--|----------------------------|--|------------------------|------------------------------|---------------------------|---|
| Central banks  | 5,604                      | 5,604  |                        |                              |                           |   |
| Liabilities at fair value through profit or loss       | 368,705                    | 370,144  |                        | 248,325                      | 317,537                   |   |
| Hedging derivatives                                    | 6,750                      | 6,767  |                        | 6,767                        | 2                         |   |
| Amounts owed to credit institutions                    | 88,621                     | 84,691   |                        | 2,839                        | 0                         |   |
| Amounts owed to clients                                | 410,633                    | 412,560  |                        | 16,392                       | 7,466                     |   |
| Debt securities  | 103,235                    | 104,843  |                        |                              | 291                       |   |
| Revaluation reserve of interest-rate-hedged portfolios | 6,020                      | 6,020  |                        |                              | 84                        |   |
| Tax liabilities  | 1,662                      | 1,289  |                        |                              | 0                         |   |
| Other Liabilities                                      | 69,139                     | 62,828   |                        |                              | 1,715                     |   |
| Debts related to Non-current assets held for sale      | 0                          | 0  |                        |                              |                           |   |
| Technical provisions of insurance companies            | 130,958                    | 0  |                        |                              |                           |   |
| Provisions   | 6,117                      | 6,101  |                        |                              | 28                        |   |
| Subordinated debts                                     | 13,647                     | 13,855   |                        |                              |                           |   |
| TOTAL DEBTS  | 1,211,091                  | 1,074,702  |                        |                              |                           |   |
| Equity   |                            |  |                        |                              |                           |   |
| Equity, Group share                                    | 59,373                     | 59,170   |                        |                              |                           |   |
| Minority interests                                     | 4,664                      | 3,816  |                        |                              |                           |   |
| Total equity   | 64,037                     | 62,986   |                        |                              |                           |   |
| TOTAL LIABILITIES                                      | 1,275,128                  | 1,137,688  |                        | 274,323                      | 327,123                   |   |

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

# 4

# **CREDIT RISKS**

# In brief

### Credit and counterparty risks

(including concentration effects) correspond to the risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk includes counterparty risk linked to market transactions and securitisation activities. In addition, credit risk 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-2017

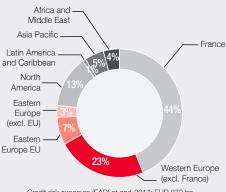
EUR 289.5 bn

(Credit risk RWA at end-2016: EUR 294.2 bn)

EAD calculated in IRB (% of total credit risk)

**78**%

#### **CREDIT RISK EAD**



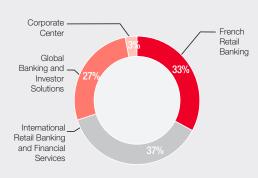
Credit risk exposure (EAD) at end-2017: EUR 872 bn (EUR 878 bn at end-2016)

#### **DISTRIBUTION OF CREDIT RISK EAD BY PORTFOLIO**



Credit risk exposure (EAD) at end-2017: EUR 872 bn (EUR 878 bn at end-2016)

#### DISTRIBUTION OF CREDIT RISKS RWA BY PILLAR



Credit risk RWA at end-2017: EUR 289 bn (EUR 294 bn at end-2016)

## 4.1 RISK SUPERVISION AND MONITORING SYSTEM

### Portfolio review and sector risk monitoring

Authorisation limits are set for each counterparty and the credit approval process must comply with the overall authorisation limit for the Group to which the counterparty belongs.

Individual large exposures are reviewed by the Large Exposures Committee chaired by General Management. Societe Generale complies with regulations governing large exposures<sup>(1)</sup>.

Concentrations are measured using an internal model and individual concentration limits are defined for larger exposures. Any concentration limit breach is managed over time by reducing exposures and/or hedging positions using credit derivatives.

Concentration targets are defined for the biggest counterparties at Concentration Committee meetings.

In addition, the Group regularly reviews its entire credit portfolio through analyses by type of counterparty or business sector. In addition to industry research and regular sector concentration analyses, sector research and more specific business portfolio analyses are carried out at the request of the Bank's General Management, Risk Division or business divisions.

## **Monitoring of Country Risk**

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 in the country of exposure.

It includes exposure to any kind of counterparty, including a sovereign state (sovereign risk is also controlled by the system of counterparty risk limits).

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 markets.

Country limits are approved annually by General Management. They can also 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 country of risk and a final country of risk (after the effects of any guarantees) within the country limits framework.

<sup>(1)</sup> Ratio of large exposures, p. 56.

### Specific monitoring of hedge funds

Hedge funds are important counterparties for the Group. Whether they are regulated or not, and regardless of the nature of the end investor, hedge funds pose idiosyncratic risks specific to investment strategies, with a strong correlation between credit risk and market risk. Furthermore, because they are able to use significant leverage, there is a higher probability of credit default.

Risks related to hedge funds are governed by various rules, including a set of global limits, some of which are established by General Management:

 a Credit VaR limit per counterparty, which controls the maximum replacement risk that may be taken;

- a stress test limit governing market risks and the risks associated with financing transactions guaranteed by shares in hedge funds;
- a global stress test limit covering hedge fund and proprietary trading group counterparties, to control the risk related to multiple defaults in stressed markets;
- concentration risk threshold per counterparty, which forms the basis for monitoring of the wrong-way risk;

Moreover, contractual terms of business established in bilateral master netting agreements enable the Group to mitigate these risks.

### **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 core scenario and a stressed scenario, which are defined by the Group's sector experts and economists. The core scenario draws on an in-depth analysis of the situation surrounding the activity or the country concerned. 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.

Structured around the portfolio analysis function, the Risk Division teams translate these economic scenarios into impacts on risk parameters (default exposure, default rate, provisioning rate at entry into default, etc.). To this end, the leading methods are based in particular on the historical relationship between economic conditions and risk parameters. As with the global stress tests, in connection with the regulatory pillar, stress tests routinely take into account the possible effect of counterparty performance for those counterparties in which the Group is most highly concentrated in a stressed environment.

# **Impairment**

Impairment includes impairments on groups of homogeneous assets, which cover performing loans, and specific impairments, which cover counterparties in default.

The applicable accounting principles are set out in Note 3.8 to the consolidated financial statements provided in Chapter 6 of this Registration Document, p. 367.

#### **IMPAIRMENT ON GROUPS OF HOMOGENEOUS ASSETS**

Impairments on groups of homogeneous assets are collective impairments booked for portfolios that are homogeneous and have a deteriorated risk profile although no objective evidence of default can be observed at an individual level.

These homogeneous groups include sensitive counterparties, sectors or countries. They are identified through regular analyses of the portfolio by sector, country or counterparty type.

These impairments are calculated on the basis of assumptions on default rates and loss rates after default. These assumptions are calibrated by homogeneous group based on each group's specific characteristics, sensitivity to the economic environment and historical data. They are reviewed periodically by the Risk Division.

#### SPECIFIC IMPAIRMENT

Decisions to book specific impairments on certain counterparties are taken where 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 that may be called up.

REPLACEMENT RISK

A counterparty is deemed to be in default when any one or more of the following conditions are observed:

- a significant decline in the counterparty's financial position leads to a high probability of it being unable to fulfil all of its commitments (credit obligations), thereby generating a risk of loss to the Bank whether or not the debt is restructured; and/or
- regardless of the type of loan (property or other), one or more receivables past due at least 90 days have been recorded (with the exception of restructured loans on probation, which are considered to be in default at the first missed payment, in
- accordance with the technical standard published in 2013 by the EBA relative to restructured loans); and/or
- a recovery procedure is underway; and/or
- the debt was restructured less than one year previously; and/or
- legal proceedings such as a bankruptcy, legal settlement or compulsory liquidation are in progress.

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.

### 4.2 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<sup>(1)</sup>.

# Management of counterparty risk linked to market transactions

Societe Generale places great emphasis on the careful monitoring of its counterparty risk exposure in order to minimise its losses in case of default. Counterparty limits are assigned to all counterparties (banks, other financial institutions, corporates, public institutions and CCP).

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:

- current average risk, particularly suitable for analysing the risk exposure for a portfolio of customers;
- 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.

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.

# Setting individual counterparty limits

The credit profile of counterparties is reviewed on a regular basis and limits are set according to both the type and maturity of the instruments concerned. The intrinsic creditworthiness of counterparties and the reliability of the associated legal documentation are two factors considered when setting these limits

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.

Audited I 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.

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

# Calculation of Exposure at Default(1) 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 above to determine the Effective Expected Positive Exposure (EEPE).

For the entities where this internal model is approved  $^{(2)}$ , it covers 96% 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 Requirement 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 1<sup>st</sup> 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 75% 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 Requirement 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.

<sup>(1)</sup> 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).

<sup>(2)</sup> Regarding activities of the former Newedge scope, the Group requested an authorisation to use this internal model. The assessment of this request by the regulator is expected in 2018.

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 re-assessed 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.

## 4.3 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.

The Group proactively manages its risks by diversifying guarantees: 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 272.44 billion at 31st December 2017 (compared with EUR 265.08 billion at 31st December 2016), of which EUR 137.46 billion for retail customers and EUR 134.98 billion for other types of counterparty (compared with EUR 131.68 billion and EUR 133.39 billion at 31st December 2016, respectively).

The outstanding loans covered by these guarantees and collateral correspond mainly to loans and receivables in the amount of EUR 225.61 billion at 31st December 2017, and to off-balance sheet commitments in the amount of EUR 43.70 billion (compared with EUR 222.10 billion and EUR 39.01 billion at 31st December 2016, respectively).

Guarantees and collateral received for loans with payments past due but not individually impaired amounted to EUR 3.12 billion at 31st December 2017 (versus EUR 2.21 billion at 31st December 2016), of which EUR 1.28 billion for retail customers and EUR 1.84 billion for other types of counterparty (versus EUR 1.21 billion and EUR 0.99 billion at 31st December 2016, respectively).

Guarantees and collateral received for individually impaired loans amounted to EUR 6.61 billion at 31st December 2017 (versus EUR 7.32 billion at 31st December 2016), of which EUR 2.92 billion for retail customers and EUR 3.68 billion for other types of counterparty (versus EUR 3.42 billion and EUR 3.90 billion at 31st December 2016, respectively). 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. Individual protection is essentially purchased under the over-concentration management policy.

Total outstanding purchases of protection through Corporate credit derivatives decreased to EUR 0.5 billion at end-December 2017 (compared to EUR 0.8 billion at end-December 2016).

The amounts recognised as assets (EUR 2.2 billion at 31st December 2017 versus EUR 3.9 billion at 31st December 2016) and liabilities (EUR 2.6 billion at 31st December 2017 versus EUR 4.2 billion at 31st December 2016) correspond to the fair value of credit derivatives mainly held under a transaction activity but also under the aforementioned protection purchases.

In 2017, the Credit Default Swap (CDS) spreads from European investment-grade issuances (iTraxx index) narrowed from mid-April onwards. The overall sensitivity of the portfolio to spreads widening declined, since the average maturity of protection is now much shorter.

Most protection purchases were made from clearing houses (89% of the outstanding amounts as of 31st December 2017), with the remainder being made from bank counterparties with ratings of A- or above.

### 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 31<sup>st</sup> December 2017, most over-the-counter (OTC) transactions were secured: by amount<sup>(1)</sup>, 71% of transactions with positive mark to market (collateral received by Societe Generale) and 63% 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). In 2017, the exchange of variation margins became mandatory for all financial counterparties. Since September 2017, 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 2017, 19% of the OTC transactions (amounting to 51% 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).

As part of the LCR stress tests, Article 30 (2) of the delegated act 2015/61 provides for a specific additional flow associated with a shock of 3 notches on the bank's rating. In this case, the impact of the amount of cash collateral the institution would have to provide given a downgrade of 3 notches in its credit rating is estimated at EUR 6 billion at 31/12/2017.

### **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.

### TABLE 17: CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (CR3)

|                       | 31.12.2017                                     |  |                                       |  |  |
|-----------------------|--|--|---------------------------------------|--|--|
| (In EUR m)            | Exposures<br>unsecured<br>– Carrying<br>amount | Exposures<br>secured<br>- Carrying<br>amount | Exposures<br>secured by<br>collateral | Exposures<br>secured by<br>financial<br>guarantees | Exposures<br>secured by<br>credit<br>derivatives |
| Total loans           | 432,811  | 166,691                                      | 137,766                               | 28,805   | 120  |
| Total debt securities | 55,222   | 323  | 0                                     | 323  | 0  |
| TOTAL EXPOSURES       | 488,034  | 167,014                                      | 137,766                               | 29,128   | 120  |

### 4.4 IFRS9 ORGANISATION

# IFRS 9 Debt instruments provisioning: general concepts

An impairment or loss allowance will be recognized for expected credit losses on debt instruments classified in financial assets at amortised cost or at fair value through equity, for lease receivables and for loan commitments and financial guarantees given. These impairments and allowances are recognised as soon as the loan is granted or as soon as the bonds are

acquired, without waiting for the occurrence of an objective evidence of impairment.

The objective is to provide a gradual and phased approach to the recognition of loss allowances for credit risk symmetrically to the recognition in profit/(loss) of the credit margin included in the interest income.

The financial assets concerned will be allocated to three categories according to the gradual increase in their credit risk since initial recognition. Impairment will be booked to each of these categories as follows:

# CREDIT RISK IDENTIFIED FROM INITIAL RECOGNITION OF THE FINANCIAL ASSET

| RISK CATEGORIES                            | STAGE 1 PERFORMING LOANS   | STAGE 2<br>SIGNIFICANT INCREASE<br>IN CREDIT RISK   | STAGE 3<br>DOUBTFUL DEBT/<br>CREDIT IMPAIRED                              |
|--|--|---|---|
| TRANSFER CRITERIA                          | Initial classification in Stage 1  Maintained as long as there is no significantincrease in credit riskt | If there is a significant increase in credit risk since initial recognition on the balance sheet/more than 30 days past due | , i   |
| CREDIT RISK MEASUREMENT                    | 12-month expected credit losses  | Lifetime expected credit losses   | Lifetime expected credit losses   |
| BASIS OF CALCULATION<br>OF INTEREST INCOME | Gross carrying amount of the financial asset before allowance for impairment                             | Gross carrying amount of the financial asset before allowance for impairment  | Net carrying amount of the financial asset after allowance for impairment |

A significant increase in credit risk will be assessed on an instrument-by-instrument basis, but may also be assessed on the basis of homogenous portfolios of similar assets, where individual assessment is not relevant. A counterparty-based approach (applying the default contagion principle to all of the counterparty's outstanding loans) will also be possible if it gives similar results. The Group must take into account all available information as well as the potential consequences of a change in macro-economic factors so that any significant increase in the credit risk on a financial asset can be assessed as early as possible. There will be a rebuttable presumption that the credit risk on a financial asset has increased significantly when the contractual payments on this asset are more than 30 days past due. However, this 30-day late period is an ultimate indicator. The entity should use all available information (behaviour scores, "loan to value" type indicators, etc.) and apply a forward looking approach to assess whether there is a significant increase in credit risk before contractual payments are over 30 days past due. Application of IFRS 9 will not alter the definition of default currently used by the Group to determine whether or not there is objective evidence of impairment of a financial asset. An asset will notably be presumed in default if one or more contractual

payments are more than 90 days past due. Impairment of groups of similar assets will be replaced by impairment calculated according to the 12-month or lifetime expected credit losses:

- A portion of the exposures on counterparties whose financial position has deteriorated since initial recognition of the financial assets, but where no individual objective indication of impairment has been identified (increase in credit risk) will be included in Stage 2 and impairment will be calculated in the amount of the lifetime ECL;
- Exposures on counterparties in economic sectors considered to be in crisis following the occurrence of loss events, or exposures on regions or countries in which an increase in credit risk has been assessed will be classified either in Stage 1 (impairment calculated in an amount equal to the 12-month ECL) or Stage 2 (impairment calculated in an amount equal to the lifetime ECL), depending on their individual credit risk and factoring in the deterioration in the sector or country from inception to the balance sheet date.

12-month expected credit losses will be measured taking into account past events, the current situation, as well as reasonable forward-looking information. Therefore, these expected losses will not be calculated according to average data observed through the cycle.

The calculation of lifetime expected credit losses will take into account historical data, the current situation, and reasonable forward-looking information on possible changes in general economic conditions, as well as relevant macroeconomic factors until contract maturity.

An impairment or loss allowance must be recognized for expected credit losses on debt instruments classified in financial

assets at amortised cost or at fair value through equity, for lease receivables and for loan commitments and financial guarantees given, according to new IFRS 9 as of January 2018.

The expected credit loss must be at least equal to the 12-month expected credit loss and must be adjusted to give the lifetime expected credit loss for the remaining term of the financial instrument, if there is a significant increase in credit risk since initial recognition.

Therefore the main change is the recognition of impairment on sound loans, from inception or from acquisition of the bonds.

### **Principles of IFRS 9 implementation**

#### **GOVERNANCE**

The Group launched a joint Risk and Finance Division IFRS 9 programme in 2013 to assess and implement the future regulatory requirement. The programme is structured around the pillars and main entities.

The Risk and Finance divisions and each of the three pillars have a specific programme team to monitor compliance with IFRS 9 in keeping with the framework defined by the Group programme team

The IFRS 9 programme is set to continue during the first half of fiscal 2018 to provide for a smooth transition with the Finance and Risk divisions, support for upgrades and changes to the information system (primarily adjustments to the notes to the financial statements) and to confirm and set up the governance required.

### PRINCIPLES OF PROVISIONING METHODOLOGY

The IFRS approach is based on the Basel framework, particularly on the past rating, default and loss data used. For all portfolios measured according to the advanced approach (IRBA and IRBF), the IFRS 9 calculation method uses the probability of default and the loss rate.

For entities applying the standardised approach, historical loss and default data were calculated where possible, but the historical depth requirements were simplified.

These choices were overseen by the Risk division and approved by General Management.

#### Calculation methodology

SG Group portfolios are segmented to give consistent portfolios of similar assets in terms of risk characteristics and better correlation with global and local macroeconomic data. This segmentation model covers all of the Group's specificities.

The new segmentation is consistent with or equal to the segmentation defined by the Basel framework to guarantee a unique default and loss history.

#### The rules for assessing a deterioration in credit risk

In order to transfer provisions for exposures from 12-month to lifetime loss provisioning, and for transferring exposures to default are as follows:

The credit rating principle in force is the cornerstone of the transfer criterion. If there is a significant deterioration in the credit rating since inception, the agreement is transferred to lifetime ECL provisioning. A significant deterioration is assessed on a portfolio-by-portfolio basis according to the probability of default curves defined to calculate IRFS 9 provisions;

- In addition, if on the reporting date the counterparty is assessed as being headed towards default, a lifetime credit loss allowance is provisioned for all contracts with this counterparty;
- As was previously the case, in the event of a counterparty default (see Registration Document, Chapter 4), the Group applies the default contagion principle to all the counterparty's contracts.

#### Forward-looking approach

The forward-looking approach to ECL (12 months/lifetime) is based primarily on building in forecasts on economic growth into the probability of default. The main economic variables used are growth in the French economy, growth in the US economy, and growth in emerging and developed economies. For international Group entities, the growth rate in the host country is the factor that is applied for the most part.

Under IFRS 9, the ECL is calculated according to the probability-weighted outcomes of three macroeconomic scenarios drawn up by the Group's economists for all SG entities (the current baseline and stress scenarios are supplemented by an optimistic scenario). Probabilities are derived from observation over a 25-year time horizon of differences (upside and downside) between actual outcomes and the main scenario. This is not an expert valuation method, but rather a model that is intended for long-term use, updated every quarter.

For some portfolios (at least GBIS's and RBDF's large corporates at this stage), this approach is supplemented by a sector adjustment of the ECL up or down to improve forecasts of the default or recovery cycles in some cyclical sectors (de facto retention of the concept of sector-based provisioning). This concerns three sectors at the outset, oil & gas and mining, the steel industry and shipping.

Finally and to a marginal extent, an overlay approach based on expert appraisal, applied to reduce or increase the expected credit loss, has also been retained to take account of future risks that cannot be modelled (primarily legislative or regulatory changes).

# 4.5 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 22% 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.231).

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, possibility of using external ratings granted to specific issuing programmes or facilities is almost inexistant.

Using the process to transfer the issuer and issue credit assessments onto items not includes in the trading book are insignificant (< 0,1%) and used mainly on securities whose counterparty is in the European Union or equivalent countries.

#### **TABLEAU 18: 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 19: BREAKDOWN OF EAD BY THE BASEL METHOD

|          | 31.12.2017 | 31.12.2016 |
|----------|------------|------------|
| IRB      | 78%        | 75%        |
| Standard | 22%        | 25%        |
| TOTAL    | 100%       | 100%       |

### TABLE 20: 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),<br>CGI, Fiditalia, GEFA and SG Finans,<br>SG Leasing SPA and Fraer Leasing SPA, SGEF Italy   | The other subsidiaries   |
| Global Banking<br>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 counterparties and qualitative parameters that evaluate economic and strategic dimensions.

### TABLE 21: SOCIETE GENERALE'S INTERNAL RATING SCALE AND CORRESPONDING SCALES OF RATING AGENCIES

| Counterparty internal rating | DBRS                   | FitchRatings | Moody's      | S&P          | 1 year<br>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<br>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 homogenous 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 (CREDIT CONVERSION FACTOR)**

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 22: PRINCIPAL CHARACTERISTICS OF MODELS AND METHODS – WHOLESALE CLIENTS

| Parameter modelled                | Portfolio/Category of<br>Basel assets  | Number of methods, models   | Methodology<br>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:<br>Banks, Insurances, Funds,<br>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<br>(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<br>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<br>Discount approach according to type of recoverable<br>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<br>Flat-rate approach according to type of collateral or<br>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<br>Flat-rate approach according to type of counterparty:<br>banks, insurance, funds, etc. and the nature of the<br>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:<br>factoring, leasing with option to purchase and other<br>specific cases.  | Statistical calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.   |
| Credit Conversion<br>Factor (CCF) | Large corporates                       | 5 models:<br>term loans with drawing period, revolving credits,<br>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. 88).

### TABLE 23: COMPARISON OF RISK PARAMETERS: ESTIMATED AND ACTUAL PD VALUES – WHOLESALE CLIENTS (CR9)

|                     |                  | 31.12.2017             |                           |                      |                    |   |  |  |
|---------------------|------------------|------------------------|---------------------------|----------------------|--------------------|---|--|--|
|                     |                  |                        |                           |                      | Number             | of obligors                               |  |  |
| Portefeuille Bâlois |                  | Weighted<br>average PD | Arithmetic<br>average PD* | End of previous year | End of<br>the year | Defaulted<br>obligors<br>over the<br>year | o.w. new<br>defaulted<br>obligors over<br>the year | Average<br>historical<br>annual<br>defauli<br>rate** |
|                     | TOTAL            | 0.1%                   | 0.8%                      | 718                  | 678                | 1   | 0  | 0.2%   |
|                     | 0.00 to <0.15    | 0.0%                   | 0.0%                      | 597                  | 548                | 0   | 0  | 0.1%   |
|                     | 0.15 to <0.25    |                        |                           |                      |                    |   |  |  |
| COVERFIGNO          | 0.25 to <0.50    | 0.3%                   | 0.3%                      | 10                   | 17                 | 0   | 0  | 0.0%   |
| SOVEREIGNS          | 0.50 to <0.75    | 0.5%                   | 0.5%                      | 25                   | 33                 | 0   | 0  | 0.0%   |
|                     | 0.75 to <2.50    | 1.8%                   | 1.5%                      | 20                   | 15                 | 0   | 0  | 0.3%   |
|                     | 2.50 to <10.00   | 5.1%                   | 4.7%                      | 44                   | 44                 | 0   | 0  | 0.5%   |
|                     | 10.00 to <100.00 | 12.3%                  | 14.4%                     | 22                   | 21                 | 1   | 0  | 3.8%   |
|                     | TOTAL            | 0.3%                   | 1.0%                      | 4,378                | 4,378              | 11  | 0  | 0.3%   |
|                     | 0.00 to <0.15    | 0.0%                   | 0.1%                      | 3,039                | 3,071              | 2   | 0  | 0.3%   |
|                     | 0.15 to <0.25    |                        |                           |                      |                    |   |  |  |
|                     | 0.25 to <0.50    | 0.3%                   | 0.3%                      | 351                  | 292                | 0   | 0  | 0.1%   |
| INSTITUTIONS        | 0.50 to <0.75    | 0.5%                   | 0.5%                      | 192                  | 177                | 1   | 0  | 0.2%   |
|                     | 0.75 to <2.50    | 1.4%                   | 1.5%                      | 247                  | 237                | 1   | 0  | 0.4%   |
|                     | 2.50 to <10.00   | 4.2%                   | 3.8%                      | 450                  | 509                | 4   | 0  | 0.8%   |
|                     | 10.00 to <100.00 | 16.6%                  | 16.5%                     | 99                   | 93                 | 3   | 0  | 4.1%   |
|                     | TOTAL            | 1.9%                   | 3.1%                      | 1,710                | 1,785              | 24  | 0  | 2.5%   |
|                     | 0.00 to <0.15    | 0.1%                   | 0.1%                      | 144                  | 137                | 0   | 0  | 0.3%   |
|                     | 0.15 to <0.25    |                        |                           |                      |                    |   |  |  |
| SPECIALISED         | 0.25 to <0.50    | 0.3%                   | 0.3%                      | 105                  | 92                 | 1   | 0  | 0.2%   |
| FINANCING           | 0.50 to <0.75    | 0.5%                   | 0.5%                      | 234                  | 237                | 0   | 0  | 0.5%   |
|                     | 0.75 to <2.50    | 1.5%                   | 1.6%                      | 559                  | 621                | 1   | 0  | 1.3%   |
|                     | 2.50 to <10.00   | 4.2%                   | 4.6%                      | 573                  | 578                | 17  | 0  | 3.6%   |
|                     | 10.00 to <100.00 | 13.8%                  | 14.1%                     | 95                   | 120                | 5   | 0  | 13.8%  |
|                     | TOTAL            | 1.0%                   | 3.1%                      | 39,328               | 36,960             | 482                                       | 62   | 1.7%   |
|                     | 0.00 to <0.15    | 0.1%                   | 0.1%                      | 9,174                | 7,669              | 1   | 0  | 0.1%   |
|                     | 0.15 to <0.25    |                        |                           |                      |                    |   |  |  |
| LARGE               | 0.25 to <0.50    | 0.3%                   | 0.3%                      | 3,544                | 2,354              | 5   | 0  | 0.2%   |
| CORPORATES          | 0.50 to <0.75    | 0.5%                   | 0.5%                      | 3,758                | 3,615              | 6   | 0  | 0.4%   |
|                     | 0.75 to <2.50    | 1.5%                   | 1.6%                      | 8,403                | 8,733              | 48  | 3  | 1.2%   |
|                     | 2.50 to <10.00   | 4.4%                   | 4.4%                      | 11,629               | 11,834             | 218                                       | 31   | 3.4%   |
|                     | 10.00 to <100.00 | 15.5%                  | 16.9%                     | 2,820                | 2,761              | 204                                       | 28   | 11.8%  |

|                             |                |                     |                           | 31.12                | .2017              |   |  |  |
|-----------------------------|----------------|---------------------|---------------------------|----------------------|--------------------|---|--|--|
|                             |                |                     | Number of obligors        |                      |                    |   |  |  |
| Portefeuille Bâlois         |                | Weighted average PD | Arithmetic<br>average PD* | End of previous year | End of<br>the year | Defaulted<br>obligors<br>over the<br>year | o.w. new<br>defaulted<br>obligors over<br>the year | Average<br>historical<br>annual<br>default<br>rate** |
|                             | Total          | 3.7%                | 5.4%                      | 85,980               | 90,371             | 2 766                                     | 350  | 3.7%   |
|                             | 0.00 to < 0.15 | 0.1%                | 0.1%                      | 3,505                | 3,053              | 8   | 0  | 0.3%   |
|                             | 0.15 to < 0.25 |                     |                           |                      |                    |   |  |  |
| SMALL- AND                  | 0.25 to < 0.50 | 0.3%                | 0.3%                      | 3,633                | 3,351              | 18  | 1  | 0.4%   |
| MEDIUM-SIZED<br>Enterprises | 0.50 to < 0.75 | 0.5%                | 0.5%                      | 6,927                | 6,962              | 31  | 7  | 0.8%   |

31 12 2017

25,007

35,099

14,645

211

777

1 721

19

70

253

1.8%

4.6%

16.1%

23,105

34,605

14,204

1.7%

4.5%

0.75 to <2.50

2.50 to <10.00

10.00 to <100.00

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

1.6%

4.6%

17.3%

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

Senior unsecured LGD.

### 31.12.2016\*\*\*

| Basel portfolio                     | Estimated LGD* | Actual LGD excluding safety margin | Actual EAD**/<br>estimated EAD |
|-------------------------------------|----------------|------------------------------------|--------------------------------|
| Large corporates                    | 35%            | 26%                                | 95%                            |
| Small- and medium-sized enterprises | 40%            | 29%                                |                                |

Senior unsecured LGD.

<sup>18.7%</sup> The performance of the rating system is measured by way of regular backtests, in accordance with regulations. Backtests compare the estimated probability of default (arithmetic average weighted by receivables) with the observed results (the historical annual default rate), which confirms the overall prudence of the rating system.

The historical annual default rate was calculated based on a long period from 2008 to 2017.

Modelled CCF (revolving, term loans), only for defaults.

<sup>\*\*</sup> Modelled CCF (revolving, term loans), only for defaults.

<sup>\*\*\*</sup> Taking into account methodological change following the supervisory authority's remarks as part of an internal models' review (TRIM).

### 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 (sociétiés civiles immobilières).

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

Once the counterparties have been classified into statistically distinct homogenous 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 (CREDIT CONVERSION FACTOR)**

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.

D--46-11-/

### TABLE 25: PRINCIPAL CHARACTERISTICS OF MODELS AND METHODS USED - RETAIL CLIENTS

| Parameter<br>modelled             | Portfolio/<br>Category of Base<br>assets      | l<br>Number of models   | Methodology<br>Number of years of default/loss   |
|-----------------------------------|---|---|--|
| RETAIL CLIENTS                    |   |   |  |
| Probability<br>of Default (PD)    | Residential r<br>eal 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.<br>Defaults observed over a period of more than 5 years.  |
|                                   | Professionals and<br>very small<br>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<br>(LGD)       | Residential real estate                       | 8 models according to entity, type of guarantee (security, mortgage), and type of counterparty: individuals or professional/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<br>very small<br>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<br>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<br>(EL)             | Private Banking exposures                     | PD and LGD derived from loss observations.  | Models restructured into a PD/LGD-based approach.<br>Implementation under way following authorisation for use from<br>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 homogenous 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.

| 31.1 | 2.2 | 017 |
|------|-----|-----|
|------|-----|-----|

|                       |                  | 31.12.2017          |                           |                      |                 |                                      |   |  |  |
|-----------------------|------------------|---------------------|---------------------------|----------------------|-----------------|--------------------------------------|---|--|--|
|                       |                  |                     |                           | Numb                 |                 |                                      |   |  |  |
| Basel Portfolio       | Fourchette de PD | Weighted average PD | Arithmetic<br>average PD* | End of previous year | End of the year | Defaulted<br>obligors in<br>the year | Average<br>historical<br>annual default<br>rate** |  |  |
|                       | TOTAL            | 3.3%                | 4.3%                      | 2,020,251            | 2,065,487       | 70,600                               | 4.2%  |  |  |
|                       | 0.00 to <0.15    | 0.1%                | 0.1%                      | 42,675               | 38,894          | 57                                   | 0.1%  |  |  |
|                       | 0.15 to < 0.25   | 0.2%                | 0.2%                      | 41,036               | 41,860          | 102                                  | 0.2%  |  |  |
| OTHER LOANS TO        | 0.25 to < 0.50   | 0.4%                | 0.3%                      | 231,192              | 250,300         | 635                                  | 0.3%  |  |  |
| NDIVIDUAL CUSTOMERS   | 0.50 to < 0.75   | 0.6%                | 0.6%                      | 238,380              | 209,942         | 1 193                                | 0.5%  |  |  |
|                       | 0.75 to <2.50    | 1.2%                | 1.3%                      | 654,925              | 674,274         | 6 050                                | 1.2%  |  |  |
|                       | 2.50 to <10.00   | 4.3%                | 4.5%                      | 619,928              | 638,865         | 22 170                               | 3.6%  |  |  |
|                       | 10.00 to <100.00 | 26.4%               | 23.8%                     | 192,115              | 211,353         | 40 393                               | 23.3%   |  |  |
|                       | TOTAL            | 1.3%                | 1.2%                      | 802,333              | 817,872         | 8,089                                | 1.2%  |  |  |
|                       | 0.00 to <0.15    | 0.0%                | 0.1%                      | 200,597              | 205,309         | 202                                  | 0.1%  |  |  |
|                       | 0.15 to < 0.25   | 0.2%                | 0.2%                      | 131,134              | 134,676         | 268                                  | 0.3%  |  |  |
|                       | 0.25 to < 0.50   | 0.4%                | 0.4%                      | 91,411               | 69,567          | 326                                  | 0.2%  |  |  |
| REAL ESTATE LOANS**** | 0.50 to <0.75    | 0.5%                | 0.7%                      | 129,989              | 116,974         | 404                                  | 0.5%  |  |  |
|                       | 0.75 to <2.50    | 1.2%                | 1.2%                      | 160,829              | 192,019         | 1,453                                | 0.8%  |  |  |
|                       | 2.50 to <10.00   | 4.4%                | 4.0%                      | 73,011               | 82,624          | 3,135                                | 2.9%  |  |  |
|                       | 10.00 to <100.00 | 18.0%               | 17.4%                     | 15,362               | 16,703          | 2,301                                | 16.1%   |  |  |
|                       | TOTAL            | 5.3%                | 2.7%                      | 8,018,541            | 7,794,888       | 158,363                              | 2.3%  |  |  |
|                       | 0.00 to <0.15    | 0.1%                | 0.1%                      | 2,046,053            | 2,017,647       | 1,626                                | 0.1%  |  |  |
|                       | 0.15 to < 0.25   | 0.2%                | 0.2%                      | 134,551              | 96,970          | 180                                  | 0.1%  |  |  |
|                       | 0.25 to < 0.50   | 0.4%                | 0.4%                      | 1,511,213            | 1,476,290       | 5,063                                | 0.4%  |  |  |
| REVOLVING CREDITS     | 0.50 to <0.75    | 0.6%                | 0.6%                      | 174,663              | 177,125         | 714                                  | 0.5%  |  |  |
|                       | 0.75 to <2.50    | 1.5%                | 1.4%                      | 2,082,932            | 1,942,170       | 21,062                               | 1.0%  |  |  |
|                       | 2.50 to <10.00   | 4.9%                | 4.4%                      | 1,553,714            | 1,523,435       | 46,501                               | 3.9%  |  |  |
|                       | 10.00 to <100.00 | 22.8%               | 18.4%                     | 515,415              | 561,252         | 83,217                               | 17.7%   |  |  |
|                       | TOTAL            | 4.3%                | 4.2%                      | 815,377              | 823,911         | 35,257                               | 4.2%  |  |  |
|                       | 0.00 to <0.15    | 0.0%                | 0.1%                      | 114                  | 108             | 6                                    | 0.0%  |  |  |
|                       | 0.15 to <0.25    | 0.2%                | 0.2%                      | 37,027               | 34,276          | 73                                   | 0.2%  |  |  |
| IOD AND DROUPCO:      | 0.25 to < 0.50   | 0.4%                | 0.3%                      | 141,567              | 145,636         | 711                                  | 0.2%  |  |  |
| SB AND PROFESSIONALS  | 0.50 to <0.75    | 0.6%                | 0.6%                      | 40,412               | 47,685          | 348                                  | 0.6%  |  |  |
|                       | 0.75 to <2.50    | 1.5%                | 1.4%                      | 268,601              | 272,600         | 4,038                                | 1.3%  |  |  |
|                       | 2.50 to <10.00   | 5.2%                | 5.4%                      | 234,885              | 235,087         | 13,061                               | 4.8%  |  |  |
|                       | 10.00 to <100.00 | 20.0%               | 19.8%                     | 92,772               | 88,520          | 17,020                               | 17.6%   |  |  |

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

<sup>\*\*</sup> The historical annual default rate was calculated based on a long period from 2010 to 2017.

<sup>\*\*\*</sup> Include this year creditor current in accordance with the revised guidelines of the EBA publication of 14th December 2016 (EBA/GL/2016/11).

<sup>\*\*\*\*</sup> Guaranteed and non-guaranteed exposures.

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

|  | 31.12.2017     |                                    |                             |  |  |  |  |
|--|----------------|------------------------------------|-----------------------------|--|--|--|--|
| Basel portfolio                                | Estimated LGD* | Actual LGD excluding safety margin | Actual EAD**/ 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*                    | 25%            | 20%                                | 74%                         |  |  |  |  |

<sup>\*</sup> Excluding guaranteed exposures.

#### 31.12.2016

| Basel portfolio                                | Estimated LGD* | Actual LGD excluding safety margin | Actual EAD**/<br>estimated EAD |
|--|----------------|------------------------------------|--------------------------------|
| Real estate loans (excl. guaranteed exposures) | 17%            | 13%                                | -                              |
| Revolving credits                              | 43%            | 39%                                | 71%                            |
| Other loans to individual customers            | 26%            | 22%                                | _                              |
| VSB and professionals                          | 26%            | 22%                                | 77%                            |
| TOTAL GROUP RETAIL CLIENTS*                    | 24%            | 20%                                | 73%                            |

Excluding guaranteed exposures.

# Governance of the modelling of risks

Governance consists in developing, validating and monitoring decisions on changes with respect to internal credit risk measurement models. An independent and dedicated Validation Department within the Risk Division is more specifically responsible for validating the credit models and parameters used for the IRB method and monitoring the use of the rating system. The internal model validation team draws up an annual audit plan specifying the nature and extent of work that needs to be

carried out, in particular according to regulatory constraints, model risks, issues covered by the model and the strategic priorities of the business lines. It is careful to coordinate its work with the Internal Audit Division to ensure a simultaneous overall review (modelling and banking aspects) of the business scopes requiring such a review. The model validation team is included within the scope subject to inspections by the Internal Audit Division.

<sup>\*\*</sup> Revolving credits and current accounts of individual and professional customers.

<sup>\*\*</sup> Revolving credits and current accounts of individual and professional customers.

The internal validation protocol for new models and annual backtesting is broken down into three stages:

- a preparation stage during which the validation team takes control of the model and the environment in which it is built and/or backtested, ensures that the expected deliverables are complete, and draws up a working plan;
- an investigation stage intended to collect all statistical and banking data required to assess the quality of the models.
   For subjects with statistical components, a review is performed by the independent model control entity, whose conclusions are formally presented to the modelling entities within the framework of a Committee (Models Committee);
- a validation stage that is structured around an Expert Committee whose purpose is to validate the Basel parameters of an internal model from a banking perspective. The Expert Committee is a body reporting to the Group Chief Risk Officer and to the Management of the business divisions concerned.

The Expert Committee is also responsible for defining the review guidelines and for revising models at the proposal of the Models Committee. These guidelines take into account the regulatory requirements and economic and financial issues of the business lines

In accordance with the Delegated Regulation (EU) No. 529/2014 of 20<sup>th</sup> 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.

# 4.6 CREDIT RISK: 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, is ensuring consitency with the guidelines on prudential disclosure requirements published by the European Banking Authority (EBA) in December 2016 (document EBA/GL/2016/11).

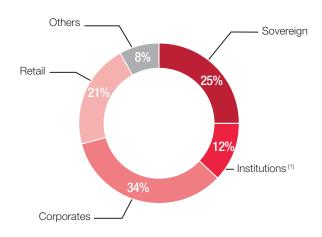
This presentation highlights the exposure categories as defined in the portfolios of the COREP regulatory financial statements, in relation to EBA requirements on Pillar 3.

## **Credit risk exposure**

At 31st December 2017, the Group's Exposure at Default (EAD) amounted to EUR 872 billion.

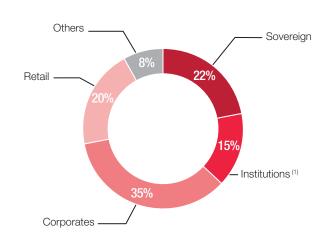
# CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2017

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



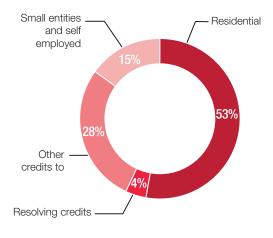
# CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2016

On- and off-balance sheet exposures (EUR 878 billion in EAD).



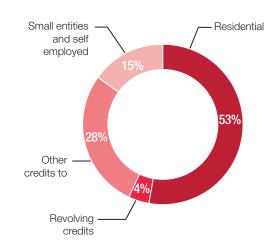
# RETAIL CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2017

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



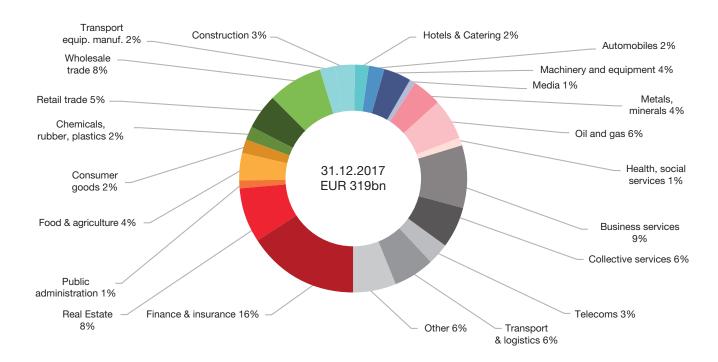
# RETAIL CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2016

On- and off-balance sheet exposures (EUR 177 billion in EAD)



<sup>(1)</sup> Institutions: Basel classification bank and public sector portfolios.

#### SECTOR BREAKDOWN OF GROUP CORPORATE EXPOSURE (BASEL PORTFOLIO)

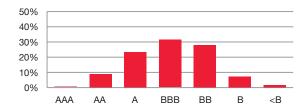


EAD of the Corporate portfolio is presented in accordance with the Basel rules (large corporates, including insurance companies, funds and hedge funds, SMEs, specialist financing, factoring businesses), based on the obligor's characteristics, before taking into account the substitution effect (credit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

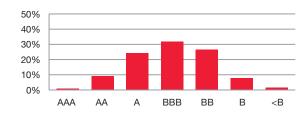
At 31st December 2017, the Corporate portfolio amounted to EUR 319 billion (on- and off-balance sheet exposures measured in EAD). Only the Finance and Insurance sector accounts for more than 10% of the portfolio. The Group's exposure to its ten largest Corporate counterparties accounts for 6% of this portfolio.

### **Corporate and bank counterparty exposure**

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



# BREAKDOWN OF RISK BY INTERNAL RATING FOR CORPORATE CLIENTS AT 31ST DECEMBER 2016 (AS % OF EAD)

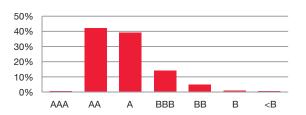


The scope includes performing loans recorded under the IRB method (excluding prudential classification criteria, by weight, of specialised financing) for the entire Corporate client portfolio, all divisions combined, and represents EAD of EUR 237 billion (out of total EAD for the Basel Corporate client portfolio of EUR 295 billion, standard method included).

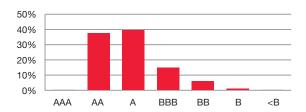
The breakdown by rating of the Group's Corporate exposure demonstrates the sound quality of the portfolio. It is based on an internal counterparty rating system, presented above as its Standard & Poor's equivalent.

At 31st December 2017, the majority of the portfolio (64% 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 2017 (AS % OF EAD)



# BREAKDOWN OF RISK BY INTERNAL RATING FOR BANKING CLIENTS AT 31ST DECEMBER 2016 (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 54 billion (out of total EAD for the Basel Bank client portfolio of EUR 109 billion, standard method included). The breakdown by rating of the Societe Generale Group's bank counterparty exposure demonstrates the sound quality of the portfolio.

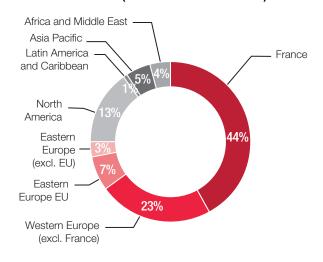
It is based on an internal counterparty rating system, presented above as its Standard & Poor's equivalent.

At 31st December 2017, exposure on banking clients was concentrated in investment grade counterparties (95% of exposure), as well as in developed countries (91%).

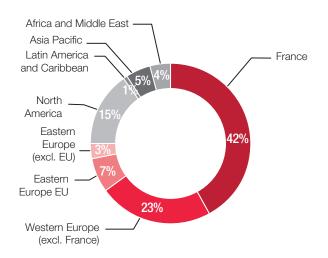
CREDIT RISK: QUANTITATIVE INFORMATION

# Geographic breakdown of Group credit risk exposure

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



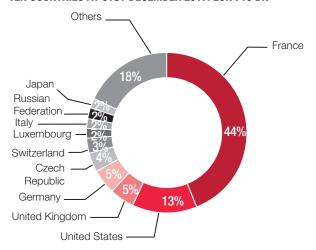
# GEOGRAPHIC BREAKDOWN OF GROUP CREDIT RISK EXPOSURE AT 31ST DECEMBER 2016 (ALL CLIENT TYPES INCLUDED): EUR 878 BN



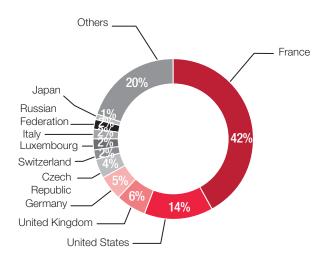
At 31st December 2017, 89% of the Group's on- and off-balance sheet exposure was concentrated in the major industrialised countries. (1)

Almost half of the overall amount of outstanding exposures was to French customers (28% exposure to non-retail portfolio and 16% to retail portfolio).

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



# GEOGRAPHIC BREAKDOWN OF GROUP CREDIT EXPOSURE ON TOP TEN COUNTRIES AT 31ST DECEMBER 2016: EUR 712 BN



The Group's exposure on its top ten countries represented 82% of total exposure (i.e. EUR 716 *bil*lion of EAD) at 31st December 2017 (versus 80% and EUR 712 billion of EAD at 31st December 2016).

### TABLE 28: GEOGRAPHIC BREAKDOWN OF GROUP CREDIT EXPOSURE ON TOP FIVE COUNTRIES BY EXPOSURE CLASS (IN %)

|              | Frai | France |      | United States |      | United Kingdom |      | Germany |      | Czech Republic |  |
|--------------|------|--------|------|---------------|------|----------------|------|---------|------|----------------|--|
|              | 2017 | 2016   | 2017 | 2016          | 2017 | 2016           | 2017 | 2016    | 2017 | 2016           |  |
| Sovereign    | 21%  | 20%    | 37%  | 32%           | 11%  | 9%             | 22%  | 21%     | 22%  | 25%            |  |
| Institutions | 8%   | 8%     | 19%  | 25%           | 33%  | 39%            | 22%  | 25%     | 4%   | 5%             |  |
| Corporates   | 29%  | 30%    | 34%  | 34%           | 39%  | 39%            | 26%  | 25%     | 36%  | 32%            |  |
| Retail       | 36%  | 36%    | 0%   | 0%            | 6%   | 5%             | 23%  | 21%     | 35%  | 34%            |  |
| Other        | 6%   | 6%     | 10%  | 9%            | 11%  | 8%             | 7%   | 8%      | 3%   | 4%             |  |

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

TABLE 29: CHANGE IN RISK-WEIGHTED ASSETS (RWA) BY METHOD AND EXPOSURE CLASS ON OVERALL CREDIT RISK (CREDIT AND COUNTERPARTY – IN EUR M)

| (In EUR m)  | RWA – IRB | RWA<br>– Standard | RWA – Total | Capital<br>requirements<br>– IRB | Capital<br>requirements<br>– Standard | Capital<br>requirements<br>– total |
|---|-----------|-------------------|-------------|----------------------------------|---------------------------------------|------------------------------------|
| RWA as at end of previous reporting period (31.12.2016) | 175,493   | 113,628           | 289,121     | 14,039                           | 9,090                                 | 23,130                             |
| Asset size  | 4,124     | 5,064             | 9,188       | 330                              | 405                                   | 735                                |
| Asset quality   | 513       | (269)             | 244         | 41                               | (22)                                  | 20                                 |
| Model updates   | (629)     | 0                 | (629)       | (50)                             | 0                                     | (50)                               |
| Methodology and policy                                  | (2,525)   | 0                 | (2,525)     | (202)                            | 0                                     | (202)                              |
| Acquisitions and disposals                              | (90)      | (1,066)           | (1,155)     | (7)                              | (85)                                  | (92)                               |
| Foreign exchange movements                              | (4,401)   | (2,779)           | (7,180)     | (352)                            | (222)                                 | (574)                              |
| Other   | (806)     | (508)             | (1,315)     | (65)                             | (41)                                  | (105)                              |
| RWA AS AT END OF REPORTING PERIOD (31.12.2017)          | 171,679   | 114,070           | 285,749     | 13,734                           | 9,126                                 | 22,860                             |

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

The main effects explaining the EUR 3.4 billion drop in weighted assets (excluding CVA) in 2017 are as follows:

- an increase of EUR +9.2 billion related to growth in the ALD fleet (EUR +3.6 billion), growth of EUR +1 billion in Komerční Banka, and growth of EUR 1.3 billion in the French network;
- a net effect on changes in the prudential scope of EUR -1.2 billion with the disposal of the entity SG Splitska Banka (EUR -2.2 billion) and an increased interest in the insurance scope (EUR +0.6 billion);
- a foreign exchange effect (EUR -7.1 billion), related primarily to the depreciation of the American dollar against the euro (EUR -5.3 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 disposal 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 disposal 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)



- French Retail Banking
- ■Global Banking and Investor Solutions
- ■International retail banking and Financial Services
- ■Coporate Centre
- Litigation cost of risk

The Group's **net cost of risk in 2017 amo**unted to EUR -1,349 million, down -35.5% vs. 2016, reflecting the improvement year after year in the Group's risk profile. The provision for litigation issues totalled EUR 2.3 billion at end-2017, further to an additional net provision of EUR 400 million in respect of 2017.

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) continued to decline. It totalled 19 basis points for 2017 (vs. 37 basis points in 2016).

- In French Retail Banking, the commercial cost of risk was down, at 30 basis points for 2017 vs. 36 basis points for 2016, reflecting the quality of the loan approval policy.
- At 29 basis points for 2017 (vs. 64 basis points for 2016), International Retail Banking and Financial Services' cost of risk was substantially lower, testifying to the effectiveness of the policies implemented to improve the quality of the loan portfolio.

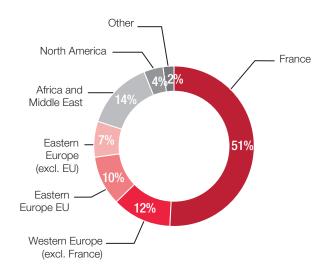
More specifically, the cost of risk in Russia and Romania was significantly lower, dropping from 182 and 98 basis points respectively in 2016 to 53 and -125 basis points in 2017.

 Global Banking and Investor Solutions' cost of risk was at -1 basis point for the year (vs. 20 basis points for 2016).

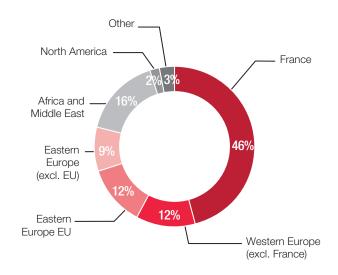
# Specific provisions and impairment for credit risks

Impairment and provisions for credit risks are primarily booked for doubtful and disputed loans (customer loans and receivables, amounts due from banks, operating leases, lease financing and similar agreements).

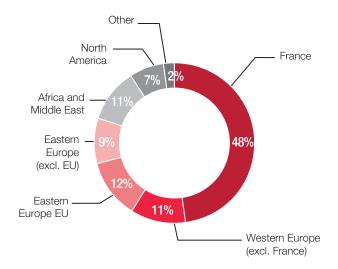
# BREAKDOWN OF DOUBTFUL AND DISPUTED LOANS BY GEOGRAPHIC REGION AT $31^{\rm st}$ December 2017



# BREAKDOWN OF PROVISIONS AND IMPAIRMENT BY GEOGRAPHIC REGION AT $31^{\rm ST}$ DECEMBER 2017

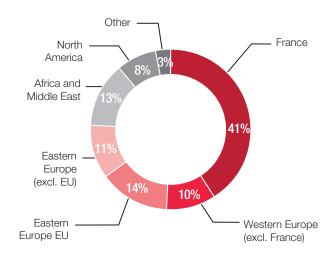


# BREAKDOWN OF DOUBTFUL AND DISPUTED LOANS BY GEOGRAPHIC REGION AT $31^{\rm ST}$ DECEMBER 2016



At  $31^{\rm st}$  December 2017, these individually impaired loans amounted to EUR 20.9 billion (versus EUR 23.9 billion at  $31^{\rm st}$  December 2016).

# BREAKDOWN OF PROVISIONS AND IMPAIRMENT BY GEOGRAPHIC REGION AT $31^{\rm ST}$ DECEMBER 2016



At 31st December 2017, these loans were provisioned or impaired for an amount of EUR 11.3 billion (vs. EUR 13.6 billion at  $31^{st}$  December 2016).

The 2016 figures relating to these provisions and impairments were adjusted.

**CREDIT RISKS** 

### Impairment on groups of homogeneous assets

At 31st December 2017, the Group's impairment on groups of homogeneous assets amounted to EUR 1.3 billion (vs. EUR 1.5 billion at 31st December 2016).

### TABLE 30: PROVISIONING OF DOUBTFUL LOANS (IN EUR BN)

| (In EUR m)  | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Gross book outstandings   | 478.7      | 479.1      |
| Doubtful loans  | 20.9       | 23.9       |
| Gross doubtful loans ratio  | 4.4%       | 5.0%       |
| Specific provisions   | 11.3       | 13.7       |
| Provisions on groups of homogeneous assets                              | 1.3        | 1.5        |
| GROSS DOUBTFUL LOANS COVERAGE RATIO (OVERALL PROVISIONS/DOUBTFUL LOANS) | 61%        | 64%        |

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

Detail regarding guarantees and collateral is available on p. 74.

### **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 6.18 billion at  $31^{\rm st}$  December 2017.

#### **TABLE 31: RESTRUCTURED DEBT**

| (In EUR m)                       | 31.12.2017 | 31.12.2016 |
|----------------------------------|------------|------------|
| Non-performing restructured debt | 5,161      | 5,819      |
| Performing restructured debt     | 1,021      | 1,031      |
| TOTAL                            | 6,182      | 6,850      |

# Loans and advances past due but not individually impaired

Loans and advances in the on-balance-sheet credit portfolio that are past due but not individually impaired are broken down as follows:

### TABLE 32: LOANS AND ADVANCES PAST DUE BUT NOT INDIVIDUALLY IMPAIRED

|                                  |                             | 31.12.2017                   |                               |                          |       |                             | 31.12.2016                   |                               |                          |       |  |
|----------------------------------|-----------------------------|------------------------------|-------------------------------|--------------------------|-------|-----------------------------|------------------------------|-------------------------------|--------------------------|-------|--|
| (In EUR bn)                      | between<br>1 and<br>30 days | between<br>31 and<br>90 days | between<br>91 and<br>180 days | more<br>than<br>180 days | Total | between<br>1 and<br>30 days | between<br>31 and<br>90 days | between<br>91 and<br>180 days | more<br>than<br>180 days | Total |  |
| Due from banks (A)               | 0.02                        | 0.02                         | 0.00                          | 0.00                     | 0.04  | 0.03                        | 0.02                         | 0.00                          | 0.00                     | 0.05  |  |
| Sovereign (B)                    | 0.01                        | 0.01                         | 0.00                          | 0.01                     | 0.03  | 0.06                        | 0.00                         | 0.00                          | 0.00                     | 0.06  |  |
| Corporates (C)                   | 2.96                        | 0.78                         | 0.18                          | 0.16                     | 4.08  | 1.74                        | 0.64                         | 0.14                          | 0.22                     | 2.74  |  |
| Retail (D)                       | 2.14                        | 0.75                         | 0.11                          | 0.05                     | 3.05  | 2.08                        | 0.76                         | 0.06                          | 0.04                     | 2.94  |  |
| Customer loans $(E = B + C + D)$ | 5.11                        | 1.54                         | 0.29                          | 0.22                     | 7.16  | 3.88                        | 1.40                         | 0.20                          | 0.26                     | 5.74  |  |
| TOTAL $(F = A + E)$              | 5.13                        | 1.56                         | 0.29                          | 0.22                     | 7.20  | 3.91                        | 1.42                         | 0.20                          | 0.26                     | 5.79  |  |

The amounts presented in the table above include loans and advances that are past due for technical reasons, which primarily affect the "between 1 and 30 days" category. Loans and advances past due for technical reasons are loans and advances that are classified as past due on account of a delay between the value date and the date of recognition in the customer's account.

The total declared past due loans and advances not individually impaired includes all receivables (outstanding principal, interest and past due amounts) with at least one recognised past due amount.

These outstanding loans and advances can be placed on a watch list as soon as the first payment is past due.

At 31st December 2017, past due loans and advances not individually impaired accounted for 1.6% of unimpaired on-balance sheet assets excluding debt instruments and including loans and advances past due for technical reasons (for a total of EUR 439.89 billion). The proportion at 31st December 2016 was 1.3% of unimpaired on-balance sheet assets excluding debt instruments.

# 4.7 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. 234).

### **TABLE 33: 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 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

At 31 December 2017, the Group's exposure at default (EAD) remained stable at EUR 872 billion (EUR 878 billion at 31 December 2016, down -0.7%).

Overall, the impact of foreign exchange movements was EUR 3.5 billion (primarily on the US dollar).

Taken by exposure class, the change breaks down as follows:

- Sovereigns: EUR 17 billion increase (including a EUR -1 billion foreign exchange impact), for the most part related to central bank liquidity lines;
- Institutions: EUR -21 billion decline (including a EUR -1 billion foreign exchange impact), due in the main to a methodology change on transactions with clearing houses for customers (further to publication of a Q&A by the EBA);
- Corporates: reduction of EUR -12 billion (including a EUR -1.7 billion foreign exchange impact), stemming from a reduction on exposures on Global Banking and Investor Solutions;
- Retail: EUR 7 billion increase (non-material foreign exchange impact), including EUR +4 billion on mortgage loans in France and in the international market.

#### TABLE 34: CREDIT RISK EXPOSURE. EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

|                |            |                  |         |            |                   | 31.12.201 | 7          |         |         |            |                        |  |  |
|----------------|------------|------------------|---------|------------|-------------------|-----------|------------|---------|---------|------------|------------------------|--|--|
|                |            | Global portfolio |         |            |                   |           |            |         |         |            |                        |  |  |
| (In EUR m)     | IR         | B approac        | h       | Stan       | Standard approach |           |            | Total   |         |            | Average <sup>(1)</sup> |  |  |
| Exposure Class | Exposition | EAD              | RWA     | Exposition | EAD               | RWA       | Exposition | EAD     | RWA     | Exposition | 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                |  |  |

<sup>(1)</sup> 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.

| (In EUR m) Exposure Class |            |            |         |            | Glo        | bal portfol | io         |         |         |            |                   |
|---------------------------|------------|------------|---------|------------|------------|-------------|------------|---------|---------|------------|-------------------|
|                           | IR         | RB approac | h       | Stan       | dard appro | ach         |            | Total   |         | Avera      | ge <sup>(1)</sup> |
|                           | Exposition | EAD        | RWA     | Exposition | EAD        | RWA         | Exposition | EAD     | RWA     | Exposition | RWA               |
| Sovereign                 | 177,800    | 186,023    | 6,164   | 9,988      | 11,159     | 9,326       | 187,788    | 197,182 | 15,490  | 186,847    | 16,295            |
| Institutions              | 59,796     | 54,563     | 10,277  | 77,067     | 75,655     | 5,744       | 136,863    | 130,218 | 16,020  | 126,802    | 15,845            |
| Corporates                | 344,892    | 251,177    | 110,695 | 71,278     | 55,421     | 47,396      | 416,169    | 306,598 | 158,091 | 407,058    | 157,544           |
| Retail                    | 148,051    | 147,007    | 29,490  | 39,425     | 30,079     | 20,905      | 187,475    | 177,086 | 50,395  | 184,810    | 49,898            |
| Others                    | 23,577     | 22,626     | 18,868  | 50,745     | 44,447     | 30,257      | 74,322     | 67,073  | 49,125  | 70,965     | 48,054            |
| TOTAL                     | 754,116    | 661,396    | 175,493 | 248,502    | 216,761    | 113,628     | 1,002,618  | 878,158 | 289,121 | 976,482    | 287,636           |

<sup>(1)</sup> 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 3.8 billion as at 31st December 2017 (vs. EUR 5.1 billion as at 31st December 2016).

# TABLE 35: RETAIL CREDIT RISK EXPOSURE, EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

#### 31.12.2017

|   |              | Retail portfolio |        |                   |        |        |          |         |        |                        |        |  |
|---|--------------|------------------|--------|-------------------|--------|--------|----------|---------|--------|------------------------|--------|--|
| (In EUR m)                              | IRB approach |                  |        | Standard approach |        |        | Total    |         |        | Average <sup>(1)</sup> |        |  |
| 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 | 102,770                | 14,639 |  |
| 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 | 193,423                | 53,222 |  |

<sup>(1)</sup> 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.

#### 31.12.2016

|   |              |         |        |                   | Ret    | ail portfoli | 0        |         |        |                        |        |
|---|--------------|---------|--------|-------------------|--------|--------------|----------|---------|--------|------------------------|--------|
| (In EUR m)                              | IRB approach |         |        | Standard approach |        |              | Total    |         |        | Average <sup>(1)</sup> |        |
| Exposure Class                          | Exposure     | EAD     | RWA    | Exposure          | EAD    | RWA          | Exposure | EAD     | RWA    | Exposure               | RWA    |
| Residential mortgages                   | 94,008       | 93,712  | 13,326 | 5,715             | 16     | 12           | 99,723   | 93,728  | 13,339 | 98,464                 | 13,359 |
| Revolving credits                       | 6,023        | 5,500   | 2,407  | 4,405             | 2,443  | 1,835        | 10,428   | 7,943   | 4,242  | 10,497                 | 4,241  |
| Other credits to individuals            | 30,695       | 30,581  | 8,595  | 20,181            | 18,957 | 14,083       | 50,876   | 49,539  | 22,678 | 49,379                 | 21,934 |
| Other – small entities or self employed | 17,325       | 17,214  | 5,161  | 9,124             | 8,663  | 4,975        | 26,449   | 25,877  | 10,136 | 26,470                 | 10,364 |
| TOTAL                                   | 148,051      | 147,007 | 29,490 | 39,425            | 30,079 | 20,905       | 187,475  | 177,086 | 50,395 | 184,810                | 49,898 |

<sup>(1)</sup> 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 36: CORPORATE CREDIT EXPOSURE AT DEFAULT (EAD) BY INDUSTRY SECTOR

|   | 31.12.2017 |                |  |  |  |  |
|---|------------|----------------|--|--|--|--|
| (In EUR m)                                  | EAD        | Breakdown in % |  |  |  |  |
| Finance & Insurance                         | 54,124     | 18.4%          |  |  |  |  |
| Real estate                                 | 24,102     | 8.2%           |  |  |  |  |
| Public administration                       | 2,943      | 1.0%           |  |  |  |  |
| Food & agriculture                          | 12,209     | 4.1%           |  |  |  |  |
| Consumer goods                              | 5,841      | 2.0%           |  |  |  |  |
| Chemicals, rubber, plastics                 | 5,428      | 1.8%           |  |  |  |  |
| Retail trade                                | 15,956     | 5.4%           |  |  |  |  |
| Wholesale trade                             | 22,692     | 7.7%           |  |  |  |  |
| Construction                                | 11,520     | 3.9%           |  |  |  |  |
| Transport equip. Manuf.                     | 2,989      | 1.0%           |  |  |  |  |
| Hotels and catering                         | 4,193      | 1.4%           |  |  |  |  |
| Automobiles                                 | 5,476      | 1.9%           |  |  |  |  |
| Machinery and equipment                     | 10,136     | 3.4%           |  |  |  |  |
| Metals, minerals                            | 10,144     | 3.4%           |  |  |  |  |
| Oil and Gas                                 | 16,127     | 5.5%           |  |  |  |  |
| Health Care and Social Assistance           | 3,051      | 1.0%           |  |  |  |  |
| Business services (including conglomerates) | 26,068     | 8.8%           |  |  |  |  |
| Collective services                         | 16,344     | 5.5%           |  |  |  |  |
| Telecoms                                    | 6,911      | 2.3%           |  |  |  |  |
| Transport & logistics                       | 15,986     | 5.4%           |  |  |  |  |
| Others                                      | 22,594     | 7.7%           |  |  |  |  |
| TOTAL                                       | 294,836    | 100%           |  |  |  |  |

EAD of the Corporate portfolio amounted to EUR 295 billion and is broken down based on the guarantor's characteristics after the substitution effect (compared to EAD of EUR 319 billion broken down by obligor before taking into account the substitution effect).

### 31.12.2016

| (In EUR m)                                  | EAD     | Breakdown in % |
|---|---------|----------------|
| Finance & Insurance                         | 54,936  | 17.9%          |
| Real estate                                 | 23,015  | 7.5%           |
| Food & agriculture                          | 12,227  | 4%             |
| Consumer goods                              | 6,031   | 2%             |
| Chemicals, rubber, plastics                 | 5,340   | 1.7%           |
| Retail trade                                | 14,966  | 4.9%           |
| Wholesale trade                             | 24,757  | 8.1%           |
| Construction                                | 9,258   | 3%             |
| Transport equip. Manuf.                     | 4,599   | 1.5%           |
| Hotels and catering                         | 4,052   | 1.3%           |
| Automobiles                                 | 6,082   | 2%             |
| Machinery and equipment                     | 12,058  | 3.9%           |
| Metals, minerals                            | 9,546   | 3.1%           |
| Oil and Gas                                 | 20,039  | 6.5%           |
| Business services (including conglomerates) | 25,894  | 8.4%           |
| Collective services                         | 18,170  | 5.9%           |
| Telecoms                                    | 6,556   | 2.1%           |
| Transport & logistics                       | 16,101  | 5.3%           |
| Others                                      | 32,969  | 10.8%          |
| TOTAL                                       | 306,598 | 100%           |

### TABLE 37: EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES AND BY EXPOSURE CLASS

|   |           |              |            | 31.12.2017 |        |         |                   |
|---|-----------|--------------|------------|------------|--------|---------|-------------------|
| (In EUR m)                                    | Sovereign | Institutions | Corporates | Retail     | Autres | Total   | Breakdown<br>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%              |

At the end of 2017 Western Europe, including France, accounted for 67% of total Group exposure (86% as regards the retail portfolio alone).

2017 saw an increase in exposure to France (by EUR 9 billion) and to Switzerland, chiefly related to exposures to central banks.

In contrast, EAD declined on the United States (by EUR -16 billion), on the Institutions portfolio (by EUR -11 billion, related to clearing houses) and on the Corporate portfolio (EUR -6 billion).

### 31.12.2016

| (In EUD m)                                    | Sovereign | Institutions | Corporates | Retail  | Autres | Total   | Breakdown<br>in % |
|---|-----------|--------------|------------|---------|--------|---------|-------------------|
| (In EUR m)                                    |           |              | <u> </u>   |         |        |         |                   |
| France  | 74,687    | 30,224       | 111,569    | 133,230 | 22,250 | 371,958 | 42.4%             |
| United Kingdom                                | 4,812     | 20,085       | 20,575     | 2,502   | 3,808  | 51,783  | 5.9%              |
| Germany                                       | 9,225     | 11,304       | 11,197     | 9,544   | 3,329  | 44,598  | 5.1%              |
| Italy   | 2,868     | 1,310        | 6,974      | 5,259   | 2,518  | 18,928  | 2.2%              |
| Luxembourg                                    | 9,672     | 759          | 8,063      | 90      | 1,668  | 20,252  | 2.3%              |
| Spain   | 1,851     | 2,223        | 6,208      | 281     | 873    | 11,436  | 1.3%              |
| Switzerland                                   | 12,364    | 1,348        | 5,837      | 843     | 215    | 20,608  | 2.3%              |
| Other Western European countries              | 7,534     | 5,355        | 21,074     | 1,458   | 3,975  | 39,397  | 4.5%              |
| Czech Republic                                | 7,837     | 1,478        | 9,846      | 10,396  | 1,346  | 30,903  | 3.5%              |
| Romania                                       | 4,587     | 355          | 2,218      | 1,728   | 2,484  | 11,372  | 1.3%              |
| Other Eastern European countries EU           | 3,725     | 390          | 6,859      | 3,623   | 3,270  | 17,867  | 2.0%              |
| Russia  | 1,558     | 1,030        | 7,331      | 2,796   | 3,452  | 16,167  | 1.8%              |
| Other Eastern European countries excluding EU | 1,106     | 1,033        | 4,067      | 842     | 880    | 7,928   | 0.9%              |
| United States                                 | 39,183    | 31,664       | 42,764     | 62      | 11,507 | 125,180 | 14.3%             |
| Other countries of North America              | 332       | 2,230        | 2,274      | 9       | 414    | 5,258   | 0.6%              |
| Latin America and Caribbean                   | 521       | 1,062        | 4,429      | 95      | 247    | 6,353   | 0.7%              |
| Africa and Middle East                        | 5,135     | 2,522        | 17,440     | 4,057   | 4,049  | 33,203  | 3.8%              |
| Japan   | 5,733     | 4,276        | 1,235      | 12      | 250    | 11,507  | 1.3%              |
| Asia-Pacific                                  | 4,453     | 11,570       | 16,639     | 260     | 538    | 33,460  | 3.8%              |
| TOTAL   | 197,182   | 130,218      | 306,598    | 177,086 | 67,073 | 878,158 | 100%              |

# TABLE 38: RETAIL EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES

|   | 31.12.2017               |                   |                               |  |         |                   |  |  |  |
|---|--------------------------|-------------------|-------------------------------|--|---------|-------------------|--|--|--|
| (In EUR m)                                    | Residential<br>mortgages | Revolving credits | Others credits to individuals | Others – small<br>entities or self<br>employed | Total   | Breakdown<br>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%              |  |  |  |

### 31.12.2016

| (In EUR m)                                    | Residential<br>mortgages | Revolving credits | Others credits to individuals | Others – small<br>entities or self<br>employed | Total   | Breakdown<br>in % |
|---|--------------------------|-------------------|-------------------------------|--|---------|-------------------|
| France  | 83,607                   | 6,438             | 27,840                        | 15,345   | 133,230 | 75%               |
| Germany                                       | 12                       | 221               | 4,976                         | 4,336  | 9,544   | 5%                |
| Italy   | 24                       | 67                | 3,449                         | 1,718  | 5,259   | 3%                |
| Other Western European countries              | 1,577                    | 44                | 1,704                         | 1,850  | 5,175   | 3%                |
| Czech Republic                                | 7,925                    | 375               | 1,185                         | 910  | 10,396  | 6%                |
| Romania                                       | 5                        | 344               | 1,207                         | 173  | 1,728   | 1%                |
| Other Eastern European countries EU           | 103                      | 76                | 2,731                         | 714  | 3,623   | 2%                |
| Russia  | 81                       | 283               | 2,402                         | 30   | 2,796   | 2%                |
| Other Eastern European countries excluding EU | 36                       | 22                | 611                           | 174  | 842     | 0%                |
| North America                                 | 20                       | 6                 | 30                            | 14   | 70      | 0%                |
| Latin America and Carribbean                  | 14                       | 10                | 70                            | 1  | 95      | 0%                |
| Africa and Middle East                        | 229                      | 41                | 3,271                         | 516  | 4,057   | 2%                |
| Asia-Pacific                                  | 95                       | 17                | 64                            | 97   | 272     | 0%                |
| TOTAL   | 93,728                   | 7,943             | 49,539                        | 25,877   | 177,086 | 100%              |

# TABLE 39: 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.

|                |                         | 31.12.2017 |         |
|----------------|-------------------------|------------|---------|
| (In EUR m)     |                         |            |         |
| 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     |
|                | Sans note externe       | 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 |

| (In EUR m)     |                         |          |         |
|----------------|-------------------------|----------|---------|
| Exposure class | External rating         | Exposure | EAD     |
| Sovereign      |                         |          |         |
|                | AAA to AA-              | 2,251    | 2,512   |
|                | A+ to A-                | 267      | 267     |
|                | BBB+ to B-              | 1,501    | 1,490   |
|                | < B-                    | 1        | 1       |
|                | Without external rating | 5,967    | 6,889   |
|                | Sub-total               | 9,988    | 11,159  |
| Institutions   |                         |          |         |
|                | AAA to AA-              | 14,718   | 9,037   |
|                | A+ to A-                | 1,138    | 1,003   |
|                | BBB+ to B-              | 1,018    | 880     |
|                | < B-                    | 216      | 194     |
|                | Without external rating | 59,977   | 64,541  |
|                | Sub-total               | 77,067   | 75,655  |
| Corporates     |                         |          |         |
|                | AAA to AA-              | 0        | 0       |
|                | A+ to A-                | 1        | 1       |
|                | BBB+ to B-              | 26       | 26      |
|                | < B-                    | 190      | 190     |
|                | Without external rating | 71,061   | 55,204  |
|                | Sub-total               | 71,278   | 55,421  |
| Retail         |                         | 0        | 0       |
|                | Without external rating | 39,425   | 30,079  |
| Other          |                         | 0        | 0       |
|                | Without external rating | 39,402   | 38,753  |
| TOTAL          |                         | 237,159  | 211,068 |

## 4.8 CREDIT RISK DETAIL

Amounts indicated in this section correspond only to credit risk (without counterparty risk).

## Breakdown of credit risk - Overview

# TABLE 40: CREDIT RISK EXPOSURE, EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

|                |          | 31.12.2017  |         |          |             |         |          |         |         |  |  |  |
|----------------|----------|-------------|---------|----------|-------------|---------|----------|---------|---------|--|--|--|
| (In EUR m)     | IF       | RB approach |         | Stan     | dard approa | ch      |          | 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 |  |  |  |

| (In EUR m)  Exposure class | II       | RB approach |         | Star     | idard approa | ch      | Total    |         |         |  |  |
|----------------------------|----------|-------------|---------|----------|--------------|---------|----------|---------|---------|--|--|
|                            | Exposure | EAD         | RWA     | Exposure | EAD          | RWA     | Exposure | EAD     | RWA     |  |  |
| Sovereign                  | 167,358  | 175,581     | 5,928   | 9,932    | 11,104       | 9,325   | 177,291  | 186,685 | 15,253  |  |  |
| Institutions               | 40,157   | 34,923      | 5,866   | 38,854   | 37,442       | 4,803   | 79,011   | 72,366  | 10,668  |  |  |
| Corporates                 | 293,882  | 200,167     | 95,941  | 66,524   | 50,667       | 43,052  | 360,405  | 250,834 | 138,992 |  |  |
| Retail                     | 148,009  | 146,965     | 29,484  | 39,176   | 29,830       | 20,890  | 187,185  | 176,796 | 50,374  |  |  |
| Others                     | 23,562   | 22,611      | 18,868  | 49,683   | 43,385       | 29,195  | 73,245   | 65,996  | 48,063  |  |  |
| TOTAL                      | 672,968  | 580,248     | 156,087 | 204,169  | 172,428      | 107,264 | 877,137  | 752,676 | 263,351 |  |  |

## **Breakdown of credit risk - Detail**

## TABLE 41: TOTAL AND AVERAGE NET AMOUNT OF EXPOSURES (CRB-B)

|   | 31.12.20  | 117                                  |
|---|---|--------------------------------------|
| (In EUR m)  | Net value of exposures at the end of the period | Average net exposure over the period |
| Central governments or central banks                                      | 176,796   | 171,759                              |
| Institutions  | 38,788  | 47,248                               |
| Corporates  | 293,543   | 304,251                              |
| of which: Specialised Lending   | 42,058  | 41,384                               |
| of which: SME   | 39,269  | 39,077                               |
| Retail  | 151,360   | 148,886                              |
| of which: Secured by real estate property                                 | 97,617  | 95,865                               |
| of which: SME   | 4,456   | 4,565                                |
| of which: Non-SME   | 93,160  | 91,301                               |
| of which: Qualifying Revolving  | 5,492   | 5,569                                |
| of which: Other Retail  | 48,251  | 47,452                               |
| of which: SME   | 17.344  | 17,083                               |
| of which: Non-SME   | 30,907  | 30,370                               |
| Equity  | 4,834   | 4,754                                |
| TOTAL IRB APPROACH  | 665,321   | 676,898                              |
| Central governments or central banks                                      | 9,925   | 9,891                                |
| Regional governments or localauthorities                                  | 915   | 964                                  |
| Public sector entities  | 491   | 451                                  |
| Multilateral Development Banks  | 32  | 116                                  |
| International Organisations   | -   | -                                    |
| Institutions  | 23,644  | 26,650                               |
| Corporates  | 59,766  | 62,696                               |
| of which: SME   | 18,840  | 18,290                               |
| Retail  | 40,978  | 40,603                               |
| of which: SME   | 9,369   | 9,507                                |
| Secured by mortgages on immovable property                                | 13,229  | 13,718                               |
| of which: SME   | 489   | 458                                  |
| Exposures in default  | 2,911   | 3,007                                |
| Items associated with particularly high risk                              |   | -                                    |
| Covered bonds   | 2   | 27                                   |
| Claims on institutions and corporates with a short-term credit assessment | _   | -                                    |
| Collective investments undertakings (CIU)                                 | 48  | 86                                   |
| Equity exposures  | 1,338   | 1,608                                |
| Other exposures   | 24,534  | 23,845                               |
| TOTAL SA APPROACH   | 177,813   | 183,661                              |
| TOTAL   | 843,134   | 860,560                              |

|   | 31.12.2010                                      |                                      |  |  |  |  |  |
|---|---|--------------------------------------|--|--|--|--|--|
| (In EUR m)  | Net value of exposures at the end of the period | Average net exposure over the period |  |  |  |  |  |
| Central governments or central banks                                      | 167,290   | 164,884                              |  |  |  |  |  |
| Institutions  | 40,127  | 42,631                               |  |  |  |  |  |
| Corporates  | 289,320   | 284,670                              |  |  |  |  |  |
| of which: Specialised Lending   | 44,838  | 41,727                               |  |  |  |  |  |
| of which: SME   | 37,579  | 36,529                               |  |  |  |  |  |
| Retail  | 144,396   | 143,091                              |  |  |  |  |  |
| Secured by real estate property   | 93,369  | 92,435                               |  |  |  |  |  |
| SME   | 4,599   | 4,816                                |  |  |  |  |  |
| Non-SME   | 88,770  | 87,620                               |  |  |  |  |  |
| Qualifying Revolving  | 5,644   | 5,781                                |  |  |  |  |  |
| Other Retail  | 45,383  | 44,875                               |  |  |  |  |  |
| SME   | 16,180  | 16,185                               |  |  |  |  |  |
| Non-SME   | 29,203  | 28,689                               |  |  |  |  |  |
| Equity  | 4,807   | 4,827                                |  |  |  |  |  |
| TOTAL IRB APPROACH  | 645,940   | 640,103                              |  |  |  |  |  |
| Central governments or central banks                                      | 9,932   | 10,347                               |  |  |  |  |  |
| Regional governments or local authorities                                 | 1,047   | 871                                  |  |  |  |  |  |
| Public sector entities  | 520   | 543                                  |  |  |  |  |  |
| Multilateral Development Banks  | 96  | 38                                   |  |  |  |  |  |
| International Organisations   | -   | -                                    |  |  |  |  |  |
| Institutions  | 37,191  | 29,394                               |  |  |  |  |  |
| Corporates  | 66,521  | 66,068                               |  |  |  |  |  |
| of which: SME   | 31,392  | 20,961                               |  |  |  |  |  |
| Retail  | 39,175  | 37,895                               |  |  |  |  |  |
| of which: SME   | 9,143   | 9,137                                |  |  |  |  |  |
| Secured by mortgages on immovable property                                | 13,828  | 13,128                               |  |  |  |  |  |
| of which: SME   | 463   | 323                                  |  |  |  |  |  |
| Exposures in default  | 3,179   | 3,362                                |  |  |  |  |  |
| Items associated with particularly  | -   | -                                    |  |  |  |  |  |
| Covered bonds   | -   | -                                    |  |  |  |  |  |
| Claims on institutions and corporates with a short-term credit assessment | -   | -                                    |  |  |  |  |  |
| Collective investments undertakings (CIU)                                 | 70  | 193                                  |  |  |  |  |  |
| Equity exposures  | 1,946   | 1,770                                |  |  |  |  |  |
| Other exposures   | 22,177  | 21,272                               |  |  |  |  |  |
| TOTAL SA APPROACH   | 195,683   | 184,882                              |  |  |  |  |  |
| TOTAL   | 841,622   | 824,985                              |  |  |  |  |  |

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 42 CR4: STANDARDISED APPROACH – CREDIT RISK EXPOSURE AND CREDIT RISK MITIGATION (CRM) EFFECTS

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                      | .2017                       |            |                     |  |  |
|---|----------------------------|-----------------------------|----------------------------|-----------------------------|------------|---------------------|--|--|
| (In EUR M)  | Exposures before           | CCF and CRM                 | Exposures post-            | -CCF and CRM                | RWA and RW | RWA and RWA density |  |  |
| Asset classes   | On-balance<br>sheet amount | Off-balance<br>sheet amount | On-balance<br>sheet amount | Off-balance<br>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%                 |  |  |

| <u>-</u>  |                         |                             |                            |                             |                     |             |  |  |  |
|---|-------------------------|-----------------------------|----------------------------|-----------------------------|---------------------|-------------|--|--|--|
| (In EUR m)  | Exposures before        | re CCF and CRM              | Exposures pos              | st-CCF and CRM              | RWA and RWA density |             |  |  |  |
| Asset classes   | On-balance sheet amount | Off-balance<br>sheet amount | On-balance<br>sheet amount | Off-balance<br>sheet amount | RWA                 | RWA density |  |  |  |
| Central governments or central banks                            | 9,903                   | 30                          | 11,091                     | 13                          | 9,325               | 84%         |  |  |  |
| Regional government or local authorities                        | 964                     | 83                          | 937                        | 37                          | 340                 | 35%         |  |  |  |
| Public sector entities  | 509                     | 11                          | 486                        | 5                           | 116                 | 24%         |  |  |  |
| Multilateral development banks                                  | 80                      | 16                          | 86                         | 8                           | 14                  | 15%         |  |  |  |
| International organisations                                     | -                       | -                           | -                          | -                           | -                   |             |  |  |  |
| Institutions  | 30,602                  | 6,589                       | 34,848                     | 1,036                       | 4,333               | 12%         |  |  |  |
| Corporates  | 52,093                  | 14,427                      | 45,387                     | 5,280                       | 43,052              | 85%         |  |  |  |
| Retail  | 33,957                  | 5,218                       | 28,224                     | 1,606                       | 20,890              | 70%         |  |  |  |
| Secured by mortgages on immovable property                      | 13,614                  | 214                         | 13,406                     | 92                          | 5,359               | 40%         |  |  |  |
| Exposures in default  | 2,963                   | 216                         | 2,918                      | 95                          | 3,600               | 119%        |  |  |  |
| Higher-risk categories  | -                       | -                           | -                          | -                           | -                   |             |  |  |  |
| Covered bonds   | -                       | -                           | -                          | -                           | -                   |             |  |  |  |
| Institutions and corporates with a short term credit assessment | -                       | -                           | -                          | -                           | -                   |             |  |  |  |
| Collective investment undertakings                              | 70                      | 0                           | 70                         | 0                           | 70                  | 100%        |  |  |  |
| Equity  | 1,946                   | 0                           | 1,946                      | 0                           | 3,053               | 157%        |  |  |  |
| Other items   | 22,177                  | -                           | 22,177                     | -                           | 15,954              | 72%         |  |  |  |
| TOTAL   | 168,878                 | 26,804                      | 161,577                    | 8,171                       | 106,105             | 63%         |  |  |  |

# TABLEAU 43 CR6: IRBA CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE

The table below pesents the non-defaulted exposures to credit risk using the internal approach for RWA calculation.

|                                       | 31.12.2017                     |                         |   |                |   |               |        |                     |        |                |     |   |
|---------------------------------------|--------------------------------|-------------------------|---|----------------|---|---------------|--------|---------------------|--------|----------------|-----|---|
| (In EUR m)                            | PD scale                       | sheet<br>gross<br>expo- | Off-<br>balance<br>sheet<br>expo-<br>sures<br>pre CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and<br>post-<br>CCF | Average<br>PD |        | Average<br>maturity | RWA    | RWA<br>density | EL  | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
| Central governments and central banks | 0.00 to <0.15                  | 156,395                 | 928   | 80%            | 176,711                                   | 0.01%         | 3.03%  | 1.47                | 1,857  | 1%             | 2   |   |
| and contract same                     | 0.15 to <0.25                  | 100,000                 | 020   | 0070           | ,   | 0.0.70        | 0.0070 |                     | .,001  | .,,            | _   |   |
|                                       | 0.25 to <0.50                  | 1,488                   | 0   | 71%            | 3,249                                     | 0.26%         | 16.96% | 2.55                | 669    | 21%            | 1   |   |
|                                       | 0.50 to <0.75                  | 13,200                  | 242   | 99%            | 2,166                                     | 0.50%         | 39.36% | 2.81                | 1,526  | 70%            | 4   |   |
|                                       | 0.75 to <2.50                  | 1,174                   | 659   | 97%            | 1,641                                     | 1.80%         | 24.73% | 1.11                | 723    | 44%            | 7   |   |
|                                       | 2.50 to <10.00                 | 786                     | 537   | 100%           | 2,778                                     | 3.42%         | 4.28%  | 2.83                | 313    | 11%            | 6   |   |
|                                       | 10.00 to <100.00               | 769                     | 285   | 63%            | 199                                       | 11.59%        | 21.76% | 1.54                | 203    | 102%           | 5   |   |
|                                       |                                |                         |   |                |   |               |        |                     |        |                |     | /4\   |
| In atitutia a a                       | Sub-total                      | 173,812                 | 2,650   | 80%            | 186,746                                   | 0.10%         | 3.92%  | 1.52                | 5,290  | 3%             | 26  | (1)   |
| Institutions                          | 0.00 to <0.15<br>0.15 to <0.25 | 19,653                  | 6,488   | 86%            | 29,490                                    | 0.04%         | 9.94%  | 2.79                | 1,575  | 5%             | 2   |   |
|                                       | 0.25 to < 0.50                 | 669                     | 599   | 94%            | 1,206                                     | 0.26%         | 20.35% | 2.43                | 438    | 36%            | 1   |   |
|                                       | 0.50 to < 0.75                 | 8,169                   | 370   | 73%            | 1,127                                     | 0.50%         | 27.34% | 1.92                | 583    | 52%            | 2   |   |
|                                       | 0.75 to <2.50                  | 1,132                   | 547   | 80%            | 953                                       | 1.31%         | 21.72% | 1.36                | 544    | 57%            | 3   |   |
|                                       | 2.50 to <10.00                 | 284                     | 222   | 69%            | 1,411                                     | 3.44%         | 19.20% | 1.71                | 437    | 31%            | 11  |   |
|                                       | 10.00 to <100.00               | 329                     | 244   | 70%            | 428                                       | 14.51%        | 21.11% | 1.71                | 472    | 110%           | 19  |   |
|                                       | Sub-total                      | 30,236                  | 8,470   | 85%            | 34,616                                    | 0.41%         | 11.52% | 2.65                | 4,048  | 12%            | 37  | (1)   |
| Corporate – SME                       | 0.00 to <0.15                  | 7,093                   | 1,205   | 97%            | 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   | 88%            | 1,837                                     | 0.31%         | 58.75% | 1.95                | 940    | 51%            | 4   |   |
|                                       | 0.50 to <0.75                  | 3,391                   | 962   | 89%            | 2,862                                     | 0.51%         | 34.29% | 2.66                | 1,287  | 45%            | 5   |   |
|                                       | 0.75 to <2.50                  | 7,772                   | 1,728   | 88%            | 8,872                                     | 1.59%         | 31.37% | 2.56                | 5,500  | 62%            | 44  |   |
|                                       | 2.50 to <10.00                 | 7,381                   | 1,467   | 90%            | 8,382                                     | 4.61%         | 29.61% | 2.44                | 6,771  | 81%            | 113 |   |
|                                       | 10.00 to <100.00               | 2,153                   | 272   | 84%            | 2,342                                     | 17.04%        | 26.86% | 2.22                | 2,521  | 108%           | 106 |   |
|                                       | Sub-total                      | 29,316                  | 6,213   | 91%            | 32,319                                    | 2.94%         | 47.01% | 2.65                | 19,374 | 60%            | 274 | 0   |
| Corporate –<br>Specialised lending    | 0.00 to <0.15                  | 2,516                   | 1,786   | 51%            | 4,564                                     | 0.07%         | 22.21% | 2.18                | 578    | 13%            | 1   |   |
|                                       | 0.15 to < 0.25                 |                         |   |                |   |               |        |                     |        |                |     |   |
|                                       | 0.25 to < 0.50                 | 1,982                   | 954   | 52%            | 2,153                                     | 0.26%         | 17.20% | 3.18                | 468    | 22%            | 1   |   |
|                                       | 0.50 to < 0.75                 | 6,355                   | 2,029   | 63%            | 6,368                                     | 0.50%         | 14.23% | 2.58                | 1,513  | 24%            | 5   |   |
|                                       | 0.75 to <2.50                  | 9,501                   | 4,760   | 51%            | 9,171                                     | 1.50%         | 18.12% | 3.09                | 4,423  | 48%            | 25  |   |
|                                       | 2.50 to <10.00                 | 4,919                   | 3,066   | 48%            | 4,789                                     | 4.14%         | 17.18% | 2.49                | 2,737  | 57%            | 33  |   |
|                                       | 10.00 to <100.00               | 831                     | 265   | 61%            | 776                                       | 13.96%        | 17.61% | 2.83                | 704    | 91%            | 19  |   |
|                                       | Sub-total                      | 26,105                  | 12,860  | 53%            | 27,820                                    | 1.74%         | 17.39% | 2.78                | 10,423 | 37%            | 84  | 0   |
| Corporate – Other                     | 0.00 to < 0.15                 | 21,135                  | 68,724  | 63%            | 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  | 59%            | 16,292                                    | 0.26%         | 30.14% | 2.76                | 6,247  | 38%            | 13  |   |
|                                       | 0.50 to <0.75                  | 19,326                  | 13,694  | 63%            | 14,450                                    | 0.50%         | 30.84% | 2.46                | 7,339  | 51%            | 22  |   |
|                                       | 0.75 to <2.50                  | 19,166                  | 14,168  | 67%            | 23,864                                    | 1.54%         | 26.07% | 2.30                | 15,074 | 63%            | 96  |   |
|                                       | 2.50 to <10.00                 | 12,469                  | 9,748   | 70%            | 15,944                                    | 4.35%         | 27.52% | 2.45                | 14,432 | 91%            | 189 |   |
|                                       | 10.00 to <100.00               | 2,293                   | 1,176   | 70%            | 2,223                                     | 15.80%        | 27.54% | 1.81                | 3,014  | 136%           | 93  |   |
|                                       | Sub-total                      | 81,485                  | 126,037   | 63%            | 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  | 100%           | 536                                       | 0.03%         | 86.89% |                     | 42     | 8%             | 0   |   |

|  |                                |                         |   |                | 31                        | .12.2017      | 1       |                     |         |                |       |   |
|--|--------------------------------|-------------------------|---|----------------|---------------------------|---------------|---------|---------------------|---------|----------------|-------|---|
| (In EUP m)                               | PD scale                       | sheet<br>gross<br>expo- | Off-<br>balance<br>sheet<br>expo-<br>sures<br>pre CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and | Average<br>PD | Average | Average<br>maturity | RWA     | RWA<br>density | EL    | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
| (In EUR m)                               | 0.15 to <0.25                  | 0                       | pie ooi   | 001            | 001                       | 0.17%         | 12.20%  | illaturity          | 0       | 4%             | 0     | 310113  |
|  | 0.15 to <0.25<br>0.25 to <0.50 |                         | 10  | 100%           |                           | 0.17%         | 12.20%  |                     | 60      | 6%             | 0     |   |
|  |                                | 1,015                   | 13  |                | 1,028                     |               |         |                     |         |                |       |   |
|  | 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   |
| 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   | 97%            | 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   | 98%            | 19,476                    | 1.40%         | 9.13%   |                     | 4,501   | 23%            | 27    |   |
|  | 2.50 to <10.00                 | 8,147                   | 141   | 98%            | 8,265                     | 4.85%         | 11.30%  |                     | 3,104   | 38%            | 42    |   |
|  | 10.00 to <100.00               | 1,537                   | 23  | 100%           | 1,555                     | 18.58%        | 8.32%   |                     | 752     | 48%            | 28    |   |
|  | Sub-total                      | 89,108                  | 2,666   | 99%            | 91,902                    | 1.20%         | 14.33%  |                     | 12,374  | 13%            | 116   | 0   |
| Retail – Qualifying revolving            | 0.00 to <0.15                  | 58                      | 1,065   | 72%            | 587                       | 0.09%         | 42.70%  |                     | 15      | 3%             | 0     |   |
|  | 0.15 to < 0.25                 |                         | 315   | 50%            | 114                       | 0.23%         | 34.05%  |                     | 5       | 4%             | 0     |   |
|  | 0.25 to <0.50                  | 91                      | 275   | 92%            | 373                       | 0.41%         | 48.96%  |                     | 37      | 10%            | 1     |   |
|  | 0.50 to <0.75                  | 107                     | 634   | 52%            | 357                       | 0.62%         | 34.16%  |                     | 34      | 10%            | 1     |   |
|  | 0.75 to <2.50                  | 380                     | 635   | 80%            | 940                       | 1.52%         | 43.85%  |                     | 225     | 24%            | 6     |   |
|  | 2.50 to <10.00                 | 794                     | 363   | 93%            | 1,619                     | 4.96%         | 44.93%  |                     | 1,103   | 68%            | 45    |   |
|  | 10.00 to <100.00               | 517                     | 44  | 95%            | 647                       | 22.64%        | 42.70%  |                     | 722     | 112%           | 59    |   |
|  | Sub-total                      | 1,947                   | 3,330   | 80%            | 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     | J   |
| TIOLAII OTIOI OME                        | 0.15 to <0.25                  | 0                       | 0   | 100%           | 1                         | 0.19%         | 27.70%  |                     | 0       | 9%             | 0     |   |
|  | 0.15 to <0.25<br>0.25 to <0.50 | 967                     | 155   | 95%            | 1,110                     | 0.13%         | 34.42%  |                     | 188     | 17%            | 1     |   |
|  | 0.50 to <0.75                  | 1,248                   | 32  | 100%           | 1,206                     | 0.56%         | 31.24%  |                     | 235     | 19%            | 2     |   |
|  | 0.75 to <2.50                  | 7,130                   | 376   | 98%            | 7,477                     | 1.47%         | 24.09%  |                     | 1,694   | 23%            | 27    |   |
|  | 2.50 to <10.00                 | 4,257                   | 316   | 98%            | 4,573                     | 5.23%         | 27.32%  |                     | 2,036   | 45%            | 78    |   |
|  | 10.00 to <100.00               | 1,433                   | 159   | 100%           | 1,600                     | 19.43%        | 33.19%  |                     | 905     | 57%            | 105   |   |
|  | Sub-total                      | 15,512                  | 1,039   | 98%            |                           | 4.08%         | 26.75%  |                     | 5,063   | 31%            | 214   | 0   |
| Retail – Other non – SME                 | 0.00 to <0.15                  |                         |   |                | 16,445                    |               |         |                     |         |                |       | U   |
| Retail - Other Hon - Sivie               |                                | 5,997                   | 1,100   | 100%           | 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  | 100%           | 1,485                     | 26.16%        | 30.26%  |                     | 1,050   | 71%            | 112   |   |
| ODEOLALIZED LEVISIVO                     | Sub-total                      | 27,312                  | 2,731   | 100%           | 29,956                    | 2.69%         | 40.70%  |                     | 9,082   | 30%            | 245   | (101)   |
| SPECIALIZED LENDING<br>SLOTTING CRITERIA | Sub-total                      | 458                     | 1,810   | 0              | 1,073                     |               |         |                     | 701     | 65%            | 5     | 0   |
| OTHER NON<br>CREDIT-OBLIGATION ASSETS    | Sub-total                      | 41                      | 0   | 0              | 19                        |               |         |                     | 19      | 99%            | 0     | 0   |
| SECURITISATION POSITIONS                 | Sub-total                      | 536                     | 18,496  | 0              | 18,933                    |               |         |                     | 1,578   | 8%             | 0     | 0   |
| EQUITY                                   | Sub-total                      | 4,833                   | 0,430   | 0              | 4,833                     |               |         |                     | 17,511  | 362%           | 113   | 0   |
| TOTAL                                    | บนม-เปเ <b>ล</b> เ             |                         |   |                |                           | 1 120/        | 10 420/ | 2 12                |         |                |       |   |
| IVIAL                                    |                                | 484,935                 | 186,368   | 62%            | 584,672                   | 1.12%         | 18.42%  | 2.12                | 144,961 | 25%            | 1,677 | (946)   |

| _                                   |                  |   |  |                | 3   | 1.12.2016 |                |                     |        |                |            |   |
|-------------------------------------|------------------|---|--|----------------|---|-----------|----------------|---------------------|--------|----------------|------------|---|
| (In EUR m)                          | PD scale         | Original<br>on-<br>balance<br>sheet<br>gross<br>expo-<br>sure | Off-<br>balance<br>sheet<br>expo-<br>sure<br>pres<br>CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and<br>post-<br>CCF |           | Average<br>LGD | Average<br>maturity | RWA    | RWA<br>density |            | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
| Central governments                 |                  |   |  |                |   |           |                |                     |        |                |            |   |
| and central banks                   | 0.00 to < 0.15   | 147,203   | 641  | 63%            | 168,451                                   | 0.01%     | 2.56%          | 1.85                | 2,176  | 1%             | 4          |   |
|                                     | 0.15 to < 0.25   |   |  |                |   |           |                |                     |        |                |            |   |
|                                     | 0.25 to < 0.50   | 1,034   | 0  | 99%            | 1,589                                     | 0.26%     | 13.06%         | 2.02                | 223    | 14%            | 1          |   |
|                                     | 0.50 to < 0.75   | 9,964   | 2,065  | 72%            | 2,040                                     | 0.50%     | 38.55%         | 2.95                | 1,458  | 71%            | 4          |   |
|                                     | 0.75 to <2.50    | 2,297   | 733  | 73%            | 2,166                                     | 1.46%     | 24.37%         | 1.29                | 1,129  | 52%            | 8          |   |
|                                     | 2.50 to <10.00   | 1,311   | 258  | 77%            | 884                                       | 3.75%     | 24.85%         | 1.68                | 574    | 65%            | 8          |   |
|                                     | 10.00 to <100.00 | 1,220   | 372  | 54%            | 348                                       | 12.79%    | 21.80%         | 1.40                | 367    | 106%           | 11         |   |
|                                     | Sub-total        | 163,030   | 4,069  | 63%            | 175,479                                   | 0.08%     |                | 1.86                | 5,927  | 3%             | 36         |   |
| Institutions                        | 0.00 to < 0.15   | 20,378  | 5,837  | 68%            | 29,188                                    | 0.04%     | 10.11%         | 2.91                | 1,818  | 6%             | 2          |   |
|                                     | 0.15 to < 0.25   |   |  |                |   |           |                |                     |        |                |            |   |
|                                     | 0.25 to < 0.50   | 739   | 466  | 73%            | 1,459                                     | 0.26%     | 33.25%         | 2.63                | 581    | 40%            | 1          |   |
|                                     | 0.50 to <0.75    | 7,075   | 2,078  | 48%            | 1,681                                     | 0.50%     | 20.40%         | 2.18                | 881    | 52%            | 2          |   |
|                                     | 0.75 to <2.50    | 1,462   | 772  | 70%            | 1,639                                     | 1.41%     | 21.39%         | 1.48                | 1,063  | 65%            | 6          |   |
|                                     | 2.50 to <10.00   | 332   | 436  | 85%            | 693                                       | 4.98%     | 15.90%         | 2.73                | 1,018  | 147%           | 13         |   |
|                                     | 10.00 to <100.00 | 312   | 204  | 69%            | 219                                       | 14.23%    | 22.52%         | 0.88                | 457    | 208%           | 12         |   |
|                                     | Sub-total        | 30,298  | 9,793  | 69%            | 34,880                                    | 0.32%     | 12.29%         | 2.78                | 5,817  | 17%            | 38         |   |
| Corporate – SME                     |                  |   | 956  | 84%            | 8,415                                     | 0.04%     | 89.86%         | 2.52                | 2,365  | 28%            | 3          |   |
|                                     | 0.15 to < 0.25   | 0   | 0  | 0%             | 0   | 0.19%     | 27.70%         | 5.00                | 0      | 26%            | 0          |   |
|                                     | 0.25 to < 0.50   | 2,018   | 416  | 73%            | 2,246                                     | 0.32%     | 61.68%         | 1.91                | 1,221  | 54%            | 5          |   |
|                                     | 0.50 to <0.75    | 3,204   | 518  | 67%            | 2,655                                     | 0.51%     | 32.42%         | 2.89                | 1,129  | 43%            | 4          |   |
|                                     | 0.75 to <2.50    | 7,612   | 1,563  | 71%            | 8,465                                     | 1.57%     | 31.56%         | 2.65                | 5,417  | 64%            | 42         |   |
|                                     | 2.50 to <10.00   | 6,715   | 1,186  | 73%            | 7,406                                     | 4.71%     | 30.46%         | 2.43                | 6,622  | 89%            | 105        |   |
|                                     | 10.00 to <100.00 | 1,951   | 261  | 72%            | 2,125                                     | 17.08%    | 28.06%         | 2.29                | 2,386  | 112%           | 100        |   |
|                                     | Sub-total        | 29,156  | 4,901  | 75%            | 31,312                                    | 2.78%     |                | 2.51                | 19,141 | 61%            | 259        | 0   |
| Corporate – Specialised lending     | 0.00 to <0.15    | 2,284   | 1,696  | 55%            | 4,482                                     | 0.06%     | 21.12%         | 2.03                | 472    | 11%            | 1          |   |
|                                     | 0.15 to <0.25    | 0.044   | 0.000  | 440/           | 4.005                                     | 0.000/    | 10.500/        | 0.07                | 000    | 450/           |            |   |
|                                     | 0.25 to <0.50    | 3,844   | 2,363  | 41%            | 4,285                                     | 0.26%     | 13.50%         | 2.07                | 639    | 15%            | 1          |   |
|                                     | 0.50 to <0.75    | 5,398   | 2,384  | 50%            | 5,795                                     | 0.50%     | 16.19%         | 2.71                | 1,578  | 27%            | 5          |   |
|                                     | 0.75 to <2.50    | 9,563   | 4,533  | 49%            | 9,643                                     | 1.53%     | 19.00%         | 3.19                | 4,914  | 51%            | 28         |   |
|                                     | 2.50 to <10.00   | 5,340   | 3,388  | 46%            | 5,623                                     | 4.58%     |                | 2.05                | 3,236  | 58%            | 42         |   |
|                                     | 10.00 to <100.00 | 763   | 291  | 65%            | 738                                       | 14.14%    | 22.07%         | 2.56                | 827    | 112%           | 23         |   |
| 0                                   | Sub-total        | 27,191  | 14,654   | 49%            | 30,567                                    | 1.80%     |                | 2.55                | 11,667 | 38%            | 101        | 0   |
| Corporate – Other                   | 0.00 to <0.15    | 20,015  | 64,083   | 59%            | 53,956                                    | 0.07%     | 32.23%         | 2.69                | 10,285 | 19%            | 12         |   |
|                                     | 0.15 to <0.25    | 7 400   | 47.750   | F70/           | 45.000                                    | 0.000/    | 00.050/        | 0.74                | 0.047  | 400/           | 40         |   |
|                                     | 0.25 to <0.50    | 7,489   | 17,752   | 57%            | 15,969                                    | 0.26%     |                | 2.71                | 6,647  | 42%            | 13         |   |
|                                     | 0.50 to <0.75    | 16,975  | 17,922   | 58%            | 14,640                                    | 0.50%     |                | 2.62                | 7,321  | 50%            | 21         |   |
|                                     | 0.75 to <2.50    | 17,747  | 14,501   | 59%            | 22,311                                    | 1.53%     |                | 2.48                | 15,605 | 70%            | 92         |   |
|                                     | 2.50 to <10.00   | 13,415  | 8,750  | 61%            | 15,939                                    | 4.51%     |                | 2.41                | 14,288 | 90%            | 187<br>104 |   |
|                                     | 10.00 to <100.00 | 2,735   | 1,087  | 69%            | 2,433                                     | 16.12%    |                |                     | 3,326  | 137%           |            |   |
| Datail Coourad by rool              | Sub-total        | 78,376  | 124,094  | 59%            | 125,247                                   | 1.28%     | 30.13%         | 2.60                | 57,471 | 46%            | 430        | (1,026)   |
| Retail – Secured by real estate SME | 0.00 to <0.15    | 469   | 14   | 99%            | 491                                       | 0.03%     | 93.28%         |                     | 35     | 7%             | 0          |   |
|                                     | 0.15 to <0.25    | 0   | 0  |                | 0   | 0.17%     |                |                     | 0      | 4%             | 0          |   |
|                                     | 0.25 to <0.50    | 988   | 9  | 100%           | 997                                       | 0.34%     |                |                     | 58     | 6%             | 0          |   |
|                                     | 0.50 to <0.75    | 347   | 5  | 100%           | 454                                       | 0.69%     | 7.40%          |                     | 26     | 6%             | 0          |   |
|                                     | 0.75 to <2.50    | 1,379   | 17   | 100%           | 1,295                                     | 0.97%     |                |                     | 167    | 13%            | 2          |   |
|                                     | 2.50 to <10.00   | 833   | 15   | 100%           | 848                                       | 3.86%     | 11.25%         |                     | 185    | 22%            | 3          |   |
|                                     | 10.00 to <100.00 | 357   | 10   | 100%           | 367                                       | 15.78%    |                |                     | 216    | 59%            | 8          |   |
|                                     | Sub-total        | 4,373   | 71   | 100%           | 4,452                                     | 2.47%     |                |                     |        | 0%             | 13         |   |

| <u>-</u>                              |                  |   |  |                |   | 1.12.2010     |        |                     |         |                |       |   |
|---------------------------------------|------------------|---|--|----------------|---|---------------|--------|---------------------|---------|----------------|-------|---|
| (In EUR m)                            | PD scale         | Original<br>on-<br>balance<br>sheet<br>gross<br>expo-<br>sure | Off-<br>balance<br>sheet<br>expo-<br>sure<br>pres<br>CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and<br>post-<br>CCF | Average<br>PD |        | Average<br>maturity | RWA     | RWA<br>density | EL    | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
| Retail – Secured by real              |                  |   |  |                |   |               |        |                     |         |                |       |   |
| estate non-SME                        | 0.00 to <0.15    | 22,150  | 766  | 100%           | 23,155                                    | 0.05%         | 21.77% |                     | 1,602   | 7%             | 2     |   |
|                                       | 0.15 to < 0.25   | 15,639  | 226  | 100%           | 15,865                                    | 0.19%         | 12.86% |                     | 829     | 5%             | 4     |   |
|                                       | 0.25 to < 0.50   | 6,243   | 157  | 72%            | 6,347                                     | 0.34%         | 16.82% |                     | 660     | 10%            | 4     |   |
|                                       | 0.50 to < 0.75   | 12,435  | 268  | 84%            | 12,627                                    | 0.58%         | 12.43% |                     | 1,443   | 11%            | 9     |   |
|                                       | 0.75 to <2.50    | 18,420  | 542  | 86%            | 18,845                                    | 1.44%         | 8.75%  |                     | 2,758   | 15%            | 23    |   |
|                                       | 2.50 to <10.00   | 8,289   | 197  | 82%            | 8,431                                     | 4.91%         | 11.41% |                     | 3,229   | 38%            | 44    |   |
|                                       | 10.00 to <100.00 | 1,672   | 23   | 97%            | 1,704                                     | 17.98%        | 7.86%  |                     | 788     | 46%            | 28    |   |
|                                       | Sub-total        | 84,848  | 2,179  | 92%            | 86,973                                    | 1.26%         | 11.98% |                     | 11,308  | 13%            | 113   | 0   |
| Retail – Qualifying revolving         | 0.00 to <0.15    | 39  | 921  | 57%            | 517                                       | 0.09%         | 41.32% |                     | 12      | 2%             | 0     |   |
|                                       | 0.15 to < 0.25   | 1   | 376  | 41%            | 151                                       | 0.23%         | 37.71% |                     | 7       | 5%             | 0     |   |
|                                       | 0.25 to < 0.50   | 71  | 238  | 85%            | 339                                       | 0.43%         | 48.39% |                     | 35      | 10%            | 1     |   |
|                                       | 0.50 to < 0.75   | 104   | 653  | 40%            | 364                                       | 0.61%         | 33.90% |                     | 34      | 9%             | 1     |   |
|                                       | 0.75 to <2.50    | 408   | 706  | 71%            | 1,024                                     | 1.49%         | 44.38% |                     | 244     | 24%            | 7     |   |
|                                       | 2.50 to <10.00   | 848   | 410  | 86%            | 1,763                                     | 4.94%         | 45.21% |                     | 1,004   | 57%            | 39    |   |
|                                       | 10.00 to <100.00 | 556   | 50   | 82%            | 705                                       | 22.82%        | 42.81% |                     | 793     | 113%           | 65    |   |
|                                       | Sub-total        | 2,027   | 3,354  | 71%            | 4,863                                     | 5.50%         | 42.25% |                     | 2,129   | 44%            | 113   | 0   |
| Retail – Other SME                    | 0.00 to <0.15    | 5   | 0  | 98%            | 6   | 0.08%         | 23.26% |                     | 0       | 3%             | 0     |   |
|                                       | 0.15 to <0.25    | 1   | 4  | 76%            | 4   | 0.20%         | 30.71% |                     | 0       | 10%            | 0     |   |
|                                       | 0.25 to <0.50    | 837   | 119  | 92%            | 996                                       | 0.37%         | 33.94% |                     | 166     | 17%            | 1     |   |
|                                       | 0.50 to <0.75    | 1,016   | 7  | 100%           | 943                                       | 0.56%         | 30.75% |                     | 181     | 19%            | 2     |   |
|                                       | 0.75 to <2.50    | 6,467   | 303  | 91%            | 6,737                                     | 1.48%         | 21.53% |                     | 1,362   | 20%            | 22    |   |
|                                       | 2.50 to <10.00   | 4,418   | 348  | 94%            | 4,748                                     | 5.05%         | 25.15% |                     | 1,780   | 37%            | 63    |   |
|                                       | 10.00 to <100.00 | 1,615   | 217  | 99%            | 1,814                                     | 19.11%        | 32.37% |                     | 997     | 55%            | 116   |   |
|                                       | Sub-total        | 14,359  | 999  | 94%            | 15,247                                    | 4.56%         | 25.32% |                     | 4,487   | 29%            | 204   | 0   |
| Retail – Other non – SME              | 0.00 to <0.15    | 5,814   | 1,032  | 97%            | 6,763                                     | 0.05%         | 75.85% |                     | 598     | 9%             | 2     |   |
|                                       | 0.15 to <0.25    | 1,071   | 170  | 100%           | 1,241                                     | 0.16%         | 15.50% |                     | 73      | 6%             | 0     |   |
|                                       | 0.25 to < 0.50   | 3,680   | 351  | 100%           | 4,035                                     | 0.37%         | 28.71% |                     | 735     | 18%            | 4     |   |
|                                       | 0.50 to <0.75    | 1,252   | 23   | 100%           | 1,275                                     | 0.64%         | 37.19% |                     | 413     | 32%            | 3     |   |
|                                       | 0.75 to <2.50    | 6,044   | 635  | 100%           | 6,679                                     | 1.25%         | 28.33% |                     | 2,260   | 34%            | 25    |   |
|                                       | 2.50 to <10.00   | 6,428   | 243  | 99%            | 6,640                                     | 4.44%         | 29.66% |                     | 3,195   | 48%            | 90    |   |
|                                       | 10.00 to <100.00 | 1,493   | 22   | 100%           | 1,514                                     | 26.50%        | 29.21% |                     | 1,046   | 69%            | 113   |   |
|                                       | Sub-total        | 25,783  | 2,477  | 98%            | 28,147                                    | 2.86%         | 39.32% |                     | 8,319   | 30%            | 237   | (107)   |
| Specialized lending slotting criteria | Sub-total        | 411   | 1,685  | 22,0           | 962                                       |               |        |                     | 626     | 65%            | 5     | 0   |
| OTHER NON<br>CREDIT-OBLIGATION ASSETS | Sub-total        | 37  |  |                | 20  |               |        |                     | 20      | 99%            | 0     | 0   |
| SECURITISATION POSITIONS              | Sub-total        | 2,112   | 16,573   |                | 18,682                                    |               |        |                     | 1,560   | 9%             | 0     | 0   |
| EQUITY                                | Sub-total        | 4,783   | 24   |                | 4,800                                     |               |        |                     | 17,288  | 360%           | 110   | 0   |
| TOTAL                                 |                  | 466,784   | 184,873  | 70%            | 561,632                                   | 1.39%         | 21.60% | 2.28                | 145,760 | 26%            | 1.658 | (1,143)   |

## TABLEAU 44 CR6: IRBF CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE

|  |                  |   |   |                | 31  | .12.2017      |         |                     |       |                |    |   |
|--|------------------|---|---|----------------|---|---------------|---------|---------------------|-------|----------------|----|---|
| (In EUR m)                                       | PD scale         | Original<br>on-<br>balance<br>sheet<br>gross<br>expo-<br>sure | Off-<br>balance<br>sheet<br>expo-<br>sures<br>pre CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and<br>post-<br>CCF | Average<br>PD |         | Average<br>maturity | RWA   | RWA<br>density | EL | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
| Central governments                              | 0.001 0.45       | -   |   | 750/           | 40  | 0.000/        | 45.000/ | 0.50                |       | 00/            | ^  |   |
| 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 | 04  |   | 750/           | 40  | 0.000/        | 45.000/ | 0.50                | •     | 00/            | •  | 0   |
| L. (9. P   | 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   | 0.000/        | 45.000/ | 0.50                | 0     | 700/           |    | 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   |
| 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:<br>SECURED BY REAL ESTATE | Sub-total        | 463   | 0   | 0%             | 463                                       |               |         |                     | 219   | 47%            | 0  | 0   |
| TOTAL  |                  | 5,137   | 351   | 75%            | 5,409                                     | 2.33%         | 43.03%  | 2.50                | 4,483 | 83%            | 50 | 0   |

| (In EUR m)                                       | PD scale         | Original<br>on-<br>balance<br>sheet<br>gross<br>expo-<br>sure | Off-<br>balance<br>sheet<br>expo-<br>sures<br>pre CCF | Average<br>CCF | EAD<br>post<br>CRM<br>and<br>post-<br>CCF | Average<br>PD |        | Average<br>maturity | RWA   | RWA<br>density | EL | Value<br>adjust-<br>ments<br>and<br>Provi-<br>sions |
|--|------------------|---|---|----------------|---|---------------|--------|---------------------|-------|----------------|----|---|
| Central governments and central                  |                  |   | •   |                |   |               | -      |                     |       |                |    |   |
| banks  | 0.00 to <0.15    | 32  | 7   | 75%            | 37  | 0.00%         | 45.00% | 2.50                | 0     | 0%             | 0  |   |
|  | 0.15 to < 0.25   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.25 to < 0.50   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.50 to < 0.75   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.75 to <2.50    | 0   |   |                | 0   | 2.12%         | 42.67% | 2.50                | 0     | 117%           | 0  |   |
|  | 2.50 to <10.00   | 0   |   |                | 0   | 3.26%         | 45.00% | 2.50                | 0     | 139%           | 0  |   |
|  | 10.00 to <100.00 |   |   |                |   |               |        |                     |       |                |    |   |
|  | Sub-total        | 33  | 7   | 75%            | 38  | 0.03%         | 45.00% | 2.50                | 0     | 1%             | 0  | 0   |
| Institutions                                     | 0.00 to < 0.15   | 4   |   |                | 4   | 0.03%         | 43.70% | 2.50                | 1     | 17%            | 0  |   |
|  | 0.15 to < 0.25   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.25 to < 0.50   | 0   |   |                | 0   | 0.26%         | 45.00% | 2.50                | 0     | 70%            | 0  |   |
|  | 0.50 to < 0.75   | 0   |   |                | 0   | 0.50%         | 45.00% | 2.50                | 0     | 91%            | 0  |   |
|  | 0.75 to <2.50    | 0   |   |                | 0   | 1.88%         | 45.00% | 2.50                | 0     | 118%           | 0  |   |
|  | 2.50 to <10.00   | 1   | 0   | 75%            | 1   | 3.60%         | 44.05% | 2.50                | 1     | 133%           | 0  |   |
|  | 10.00 to <100.00 | 0   |   |                | 0   | 27.25%        |        | 2.50                | 0     | 294%           | 0  |   |
|  | Sub-total        | 5   | 0   | 75%            | 5   | 0.61%         | 42.93% | 2.50                | 2     | 37%            | 0  | 0   |
| Corporate – SME                                  | 0.00 to <0.15    | 165   | 14  | 75%            | 193                                       | 0.11%         | 42.86% | 2.50                | 41    | 21%            | 0  |   |
|  | 0.15 to < 0.25   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.25 to < 0.50   | 126   | 7   | 75%            | 132                                       | 0.26%         | 42.47% | 2.50                | 49    | 37%            | 0  |   |
|  | 0.50 to <0.75    | 335   | 23  | 75%            | 310                                       | 0.50%         | 42.67% | 2.50                | 159   | 51%            | 1  |   |
|  | 0.75 to <2.50    | 760   | 47  | 75%            | 793                                       | 1.48%         | 42.64% | 2.50                | 612   | 77%            | 5  |   |
|  | 2.50 to <10.00   | 514   | 21  | 76%            | 564                                       | 4.60%         | 42.95% | 2.50                | 578   | 102%           | 10 |   |
|  | 10.00 to <100.00 | 114   | 3   | 75%            | 112                                       | 16.51%        | 42.67% | 2.50                | 180   | 160%           | 8  |   |
|  | Sub-total        | 2,014   | 115   | 75%            | 2,104                                     | 2.77%         | 42.74% | 2.50                | 1,618 | 77%            | 24 | 0   |
| Corporate – Other                                | 0.00 to <0.15    | 481   | 24  | 75%            | 506                                       | 0.07%         | 43.26% | 2.50                | 116   | 23%            | 0  |   |
|  | 0.15 to < 0.25   |   |   |                |   |               |        |                     |       |                |    |   |
|  | 0.25 to <0.50    | 186   | 26  | 78%            | 206                                       | 0.26%         | 43.30% | 2.50                | 106   | 51%            | 0  |   |
|  | 0.50 to <0.75    | 266   | 19  | 75%            | 270                                       | 0.50%         | 43.32% | 2.50                | 192   | 71%            | 1  |   |
|  | 0.75 to <2.50    | 769   | 26  | 75%            | 791                                       | 1.55%         | 42.96% | 2.50                | 841   | 106%           | 5  |   |
|  | 2.50 to <10.00   | 482   | 9   | 76%            | 498                                       | 4.45%         | 43.36% | 2.50                | 707   | 142%           | 9  |   |
|  | 10.00 to <100.00 | 119   | 2   | 75%            | 115                                       | 16.00%        | 43.41% | 2.50                | 258   | 225%           | 8  |   |
|  | Sub-total        | 2,302   | 106   | 75%            | 2,387                                     | 2.31%         | 43.20% | 2.50                | 2,220 | 93%            | 23 | 0   |
| ALTERNATIVE TREATMENT:<br>SECURED BY REAL ESTATE | Sub-total        | 331   | 3   | 100%           | 334                                       |               |        |                     | 157   | 47%            | 0  | 0   |
| TOTAL  |                  | 4,685   | 231   | 76%            | 4,867                                     | 2.50%         | 43.00% | 2.50                | 3,998 | 82%            | 47 | 0   |

# TABLE 45 CR5: STANDARDISED APPROACH (DISCLOSURE OF THE BREAKDOWN OF EXPOSURES POST CONVERSION FACTOR AND POST RISK MITIGATION TECHNIQUES)

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 | 2.2017 | 1      |        |        |       |      |       |                         |         |
|--|-------|-------|----|-----|--------|--------|-------|--------|--------|--------|--------|-------|------|-------|-------------------------|---------|
| (In EUR m)   |       |       |    |     |        |        | Ris   | sk Wei | ight   |        |        |       |      |       |                         |         |
| Exposure Class   | 0%    | 2%    | 4% | 10% | 20%    | 35%    | 50%   | 70%    | 75%    | 100%   | 150%   | 250%  | 370% | 1250% | Other<br>Risk<br>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<br>Development Banks  | 25    | 0     | 0  | 0   | 0      | 0      | 0     | 0      | 0      | 11     | 0      | 0     | 0    | 0     | 0                       | 36      |
| International<br>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    | 42,151 | 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      |        | 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<br>and corporates with<br>a short-term credit<br>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 | 10,387 | 1,326 | 0      | 32,203 | 64,801 | 1 ,645 | 3,393 | 0    | 0     | 9, 641                  | 152,781 |

| (In EUR m)   |        |       |    |     |        |        | Ri    | sk Wei | ght    |        |       |       |      |       |                         |         |
|--|--------|-------|----|-----|--------|--------|-------|--------|--------|--------|-------|-------|------|-------|-------------------------|---------|
| Exposure Class   | 0%     | 2%    | 4% | 10% | 20%    | 35%    | 50%   | 70%    | 75%    | 100%   | 150%  | 250%  | 370% | 1250% | Other<br>Risk<br>Weight | Total   |
| Central governments or central banks   | 6,069  | 0     | 0  | 0   | 267    | 0      | 36    | 0      | 0      | 1,716  | 0     | 3,015 | 0    | 0     | 0                       | 11,104  |
| Regional governments or local authorities  | 187    | 0     | 0  | 0   | 555    | 0      | 1     | 0      | 13     | 219    | 0     | 0     | 0    | 0     | 0                       | 974     |
| Public sector entities   | 0      | 0     | 0  | 0   | 468    | 0      | 0     | 0      | 0      | 22     | 0     | 0     | 0    | 0     | 0                       | 490     |
| Multilateral<br>Development Banks  | 76     | 0     | 0  | 0   | 0      | 0      | 8     | 0      | 0      | 10     | 0     | 0     | 0    | 0     | 0                       | 94      |
| International<br>Organisations   | 0      | 0     | 0  | 0   | 0      | 0      | 0     | 0      | 0      | 0      | 0     | 0     | 0    | 0     | 0                       | 0       |
| Institutions   | 8,673  | 6,957 | 0  | 0   | 12,887 | 36     | 984   | 0      | 29     | 1,025  | 31    | 0     | 0    | 0     | 5,262                   | 35,884  |
| Corporates   | 0      | 5     | 0  | 0   | 1,003  | 42     | 583   | 0      | 582    | 42,523 | 569   | 0     | 0    | 0     | 5,361                   | 50,667  |
| Retail   | 0      | 0     | 0  | 0   | 0      | 23     | 0     | 0      | 29,216 | 255    | 12    | 0     | 0    | 0     | 324                     | 29,830  |
| Secured by mortgages on immovable property   | 0      | 0     | 0  | 0   | 3      | 11,731 | 307   | 0      | 1,304  | 152    | 0     | 0     | 0    | 0     | 2                       | 13,498  |
| Exposures in default   | 0      | 0     | 0  | 0   | 0      | 0      | 0     | 0      | 0      | 1,607  | 1,327 | 0     | 0    | 0     | 80                      | 3,014   |
| 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<br>and corporates with<br>a short-term credit<br>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   | 1      | 0      | 0     | 0      | 0      | 67     | 2     | 0     | 0    | 0     | 0                       | 70      |
| Equity exposures   | 329    | 0     | 0  | 0   | 0      | 0      | 0     | 0      | 0      | 633    | 8     | 963   | 0    | 0     | 13                      | 1,946   |
| Other exposures  | 0      | 0     | 0  | 0   | 118    | 0      | 89    | 0      | 0      | 14,333 | 0     | 0     | 0    | 0     | 7,637                   | 22,177  |
| TOTAL 1  | 15,335 | 6,962 | 0  | 0   | 15,303 | 11,831 | 2,009 | 0      | 31,143 | 62,562 | 1,948 | 3,978 | 0    | 0     | 18,679                  | 169,748 |

#### TABLE 46: 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.

|   |         |                   |         |        | 201             | 17    |                  |   |                   |         |
|---|---------|-------------------|---------|--------|-----------------|-------|------------------|---|-------------------|---------|
| (In EUR m)  | France  | United<br>Kingdom | Germany | Italy  | Luxem-<br>bourg | Spain | Switzer-<br>land | Other<br>Western<br>European<br>countries | Czech<br>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  |

|   |   |        |  |                  | 2   | 017                                  |                                 |        |                  |         |
|---|---|--------|--|------------------|---|--------------------------------------|---------------------------------|--------|------------------|---------|
| (In EUR m)  | Other<br>Eastern<br>European<br>countries<br>EU | Russia | Other<br>Eastern<br>European<br>countries<br>excluding<br>EU | United<br>States | Other<br>countries<br>of North<br>America | Latin<br>America<br>and<br>Caribbean | Africa<br>and<br>Middle<br>East | Japan  | Asia-<br>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<br>and corporates with a short-term<br>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 |

#### 2016

| (In EUR m)  | France  | United<br>Kingdom | Germany | Italy  | Luxem-<br>bourg | Spain  | Swit-<br>zerland | Other<br>Western<br>European<br>countries | Czech<br>Republic | Romania |
|---|---------|-------------------|---------|--------|-----------------|--------|------------------|---|-------------------|---------|
| Central governments or central banks                                      | 63,973  | 3,498             | 5,975   | 383    | 4,643           | 781    | 12,160           | 5,602                                     | 6,771             | 3,822   |
| Institutions  | 17,404  | 1,067             | 502     | 170    | 1,801           | 778    | 367              | 1,883                                     | 1,195             | 1       |
| Corporates  | 105,892 | 17,433            | 15,676  | 6,885  | 4,891           | 6,521  | 5,680            | 19,077                                    | 10,446            | 367     |
| Retail  | 123,577 | 1,609             | 3,210   | 3,622  | 70              | 64     | 634              | 432                                       | 9,781             | 3       |
| Equity  | 3,845   | 133               | 7       | -      | 367             | 2      | 0                | 123                                       | 26                | 22      |
| TOTAL IRB APPROACH  | 314,691 | 23,741            | 25,369  | 11,059 | 11,771          | 8,147  | 18,841           | 27,117                                    | 28,219            | 4,215   |
| Central governments or central banks                                      | 3,948   | 1,044             | 356     | 755    | 56              | 132    | 29               | 308                                       | 35                | 9       |
| Regional governments or local authorities                                 | 195     | 26                | 43      | 38     | 0               | 13     | -                | 44  | 0                 | 277     |
| Public sector entities  | 154     | 115               | 0       | 4      | -               | 58     | 17               | 100                                       | 1                 | 6       |
| Multilateral Development Banks  | -       | -                 | -       | -      | 70              | -      | -                | -   | -                 | -       |
| International Organisations   | -       | -                 | -       | -      | -               | -      | -                | -   | -                 | -       |
| Institutions  | 3,600   | 8,184             | 5,360   | 727    | 292             | 467    | 201              | 865                                       | 11                | 8       |
| Corporates  | 21,072  | 1,293             | 2,079   | 1,756  | 521             | 574    | 389              | 4,371                                     | 1,196             | 3,441   |
| Retail  | 13,233  | 900               | 7,104   | 1,382  | 8               | 278    | 207              | 1,119                                     | 1,096             | 2,666   |
| Secured by mortgages on immovable property                                | 2,294   | 181               | 3       | 13     | 4               | 11     | 24               | 460                                       | 836               | 1,842   |
| Exposures in default  | 928     | 6                 | 187     | 147    | 5               | 34     | 3                | 68  | 68                | 328     |
| Items associated with particularly high risk                              | -       | -                 | -       | -      | -               | -      | -                | -   | -                 | -       |
| Covered bonds   | -       | -                 | -       | -      | -               | -      | -                | -   | -                 | -       |
| Claims on institutions and corporates with a short-term credit assessment | -       | -                 | -       | -      | -               | -      | -                | -   | -                 | -       |
| Collective investments undertakings (CIU)                                 | 0       | 11                | _       | 5      | 15              | 0      | 17               | 3   | -                 | -       |
| Equity exposures  | 1,243   | 238               | 7       | 24     | -               | -      | 9                | 103                                       | 26                | 6       |
| Other exposures   | 10,095  | 1,597             | 1,508   | 1,488  | 829             | 724    | 142              | 2,094                                     | 514               | 313     |
| TOTAL SA APPROACH   | 56,761  | 13,595            | 16,648  | 6,340  | 1,800           | 2,291  | 1,039            | 9,534                                     | 3,784             | 8,895   |
| TOTAL   | 371,452 | 37,336            | 42,017  | 17,399 | 13,571          | 10,437 | 19,880           | 36,651                                    | 32,003            | 13,110  |

#### 2016

| (In EUR m)  | Other<br>Eastern<br>European<br>countries<br>EU | Russia | Other Eastern European countries excluding EU | United<br>States | Other<br>countries<br>of North<br>America | Latin<br>America<br>and<br>Caribbean | Africa and<br>Middle<br>East | Japan | Asia-<br>Pacific | Total   |
|---|---|--------|---|------------------|---|--------------------------------------|------------------------------|-------|------------------|---------|
| Central governments or central banks                                      | 2,441   | 1,508  | 1,712   | 37,309           | 229                                       | 1,907                                | 7,069                        | 4,644 | 2,864            | 167,290 |
| Institutions  | 60  | 402    | 1,801   | 5,076            | 381                                       | 179                                  | 2,209                        | 228   | 4,622            | 40,127  |
| Corporates  | 3,284   | 3,436  | 3,848   | 48,160           | 2,662                                     | 5,604                                | 10,626                       | 600   | 18,233           | 289,320 |
| Retail  | 142   | 118    | 60  | 82               | 6   | 71                                   | 757                          | 11    | 148              | 144,396 |
| Equity  | 29  | 15     | 23  | 165              | 0   | 6                                    | 19                           | 3     | 23               | 4,807   |
| TOTAL IRB APPROACH  | 5,957   | 5,479  | 7,444   | 90,792           | 3,277                                     | 7,766                                | 20,681                       | 5,485 | 25,890           | 645,940 |
| Central governments or central banks                                      | 773   | 45     | 535   | 611              | 18  | 66                                   | 838                          | 272   | 100              | 9,932   |
| Regional governments or local authorities                                 | 181   | 50     | 8   | 1                | 84  | 20                                   | 68                           | -     | -                | 1,047   |
| Public sector entities  | 41  | 24     | 0   | -                | -   | -                                    | 0                            | -     | -                | 520     |
| Multilateral Development Banks  | -   | 26     | -   | -                | -   | -                                    | -                            | -     | -                | 96      |
| International Organisations   | -   | -      | -   | -                | -   | -                                    | -                            | -     | -                | -       |
| Institutions  | 78  | 542    | 100   | 10,364           | 399                                       | 284                                  | 366                          | 1,781 | 3,560            | 37,191  |
| Corporates  | 5,534   | 6,142  | 1,631   | 1,616            | 16  | 447                                  | 12,957                       | 66    | 1,420            | 66,521  |
| Retail  | 3,791   | 2,854  | 845   | 5                | 2   | 17                                   | 3,552                        | 0     | 115              | 39,175  |
| Secured by mortgages on immovable property                                | 2,709   | 2,592  | 675   | 11               | 6   | 2                                    | 2,117                        | 0     | 50               | 13,828  |
| Exposures in default  | 299   | 327    | 124   | 22               | 0   | 14                                   | 652                          | 0     | 27               | 3,237   |
| Items associated with particularly high risk                              | -   | -      | -   | -                | -   | -                                    | -                            | -     | -                | -       |
| Covered bonds   | -   | -      | -   | -                | -   | -                                    | -                            | -     | -                | -       |
| Claims on institutions and corporates with a short-term credit assessment | -   | -      | -   | -                | -   | -                                    | -                            | -     | -                | -       |
| Collective investments undertakings (CIU)                                 | 12  | -      | -   | 5                | 0   | 0                                    | 1                            | -     | 0                | 70      |
| Equity exposures  | 28  | 2      | 25  | 12               | -   | -                                    | 184                          | 1     | 39               | 1,946   |
| Other exposures   | 296   | 580    | 86  | 321              | 15  | 245                                  | 1,024                        | 44    | 262              | 22,177  |
| TOTAL SA APPROACH   | 13,744  | 13,183 | 4,028   | 12,968           | 540                                       | 1,094                                | 21,760                       | 2,165 | 5,573            | 195,741 |
| TOTAL   | 19,700  | 18,661 | 11,472  | 103,760          | 3,818                                     | 8,860                                | 42,441                       | 7,650 | 31,463           | 841,680 |

## TABLE 47: CONCENTRATION OF EXPOSURES BY INDUSTRY OR COUNTERPARTY TYPE (CRB-D)

|  |                     |                |                               |                    |                   |                                   | 31.12.          | 2017                    |                   |                               |   |                           |                  |                               |
|--|---------------------|----------------|-------------------------------|--------------------|-------------------|-----------------------------------|-----------------|-------------------------|-------------------|-------------------------------|---|---------------------------|------------------|-------------------------------|
| (In EUR m)   | Finance & Insurance | Real<br>estate | Public<br>adminis-<br>tration | Food & agriculture | Consumer<br>goods | Chemicals,<br>rubber,<br>plastics | Retail<br>trade | Whole-<br>sale<br>trade | Cons-<br>truction | Transport<br>equip.<br>Manuf. | Education<br>and<br>associative<br>activities | Hotels<br>and<br>catering | Auto-<br>mobiles | Machinery<br>and<br>equipment |
| 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<br>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<br>governments or local<br>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<br>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<br>mortgages on<br>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<br>and corporates with<br>a short-term credit<br>assessment | 0                   | 0              | 0                             | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 0   | 0                         | 0                | 0                             |
| Claims<br>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<br>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                        |

|  |                                  |                     |       |                |                               | 31.1   | 12.2017             |   |         |                             |         |        |         |
|--|----------------------------------|---------------------|-------|----------------|-------------------------------|--|---------------------|---|---------|-----------------------------|---------|--------|---------|
| (In EUR m)   | Wood<br>and<br>paper<br>industry | Metals,<br>minerals | Media | Oil and<br>Gas | Health,<br>social<br>services | Business<br>services<br>(including<br>conglomerates) | Collective services | Personal<br>and<br>domestic<br>Services T | elecoms | Transport<br>&<br>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<br>governments<br>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<br>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<br>mortgages<br>immovable property                                      | 3                                | 39                  | 1     | 0              | 13                            | 31   | 5                   | 1   | 0       |                             | 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<br>and corporates<br>with a short-term credit<br>assessment | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0   | 0       | 0                           | 0       | 0      | 0       |
| Claims in the form of CIL  | 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 |

|   |                     |                |                               |                    |                   |                                   | 0               | 0.0                     |                   |                               |   |                           |                  |                               |
|---|---------------------|----------------|-------------------------------|--------------------|-------------------|-----------------------------------|-----------------|-------------------------|-------------------|-------------------------------|---|---------------------------|------------------|-------------------------------|
| (In EUR m)  | Finance & Insurance | Real<br>estate | Public<br>adminis-<br>tration | Food & agriculture | Consumer<br>goods | Chemicals,<br>rubber,<br>plastics | Retail<br>trade | Whole-<br>sale<br>trade | Cons-<br>truction | Transport<br>equip.<br>Manuf. | Education<br>and<br>associative<br>activities | Hotels<br>and<br>catering | Auto-<br>mobiles | Machinery<br>and<br>equipment |
| Central governments                                 | -                   |                |                               |                    |                   |                                   |                 |                         |                   |                               |   |                           |                  |                               |
| and central banks                                   | 7,701               | 0              | 154,421                       | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 162   | 0                         | 0                | 0                             |
| Institutions  | 22,936              | 83             | 11,763                        | 0                  | 0                 | 0                                 | 368             | 0                       | 32                | 0                             | 42  | 12                        | 725              | 202                           |
| Corporates  | 45,999              | 21,866         | 3,740                         | 11,458             | 5,695             | 7,882                             | 13,484          | 23,004                  | 12,221            | 4,493                         | 1,312   | 3,435                     | 7,894            | 14,264                        |
| 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<br>APPROACH                               | 76,636              | 21,948         | 169,924                       | 11,458             | 5,695             | 7,882                             | 13,852          | 23,004                  | 12,253            | 4,493                         | 1,516   | 3,446                     | 8,619            | 14,466                        |
| Central governments or central banks                | 0                   | 0              | 3,493                         | 1                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 4   | 0                         | 0                | 0                             |
| Regional governments or local authorities           | 15                  | 22             | 783                           | 0                  | 0                 | 0                                 | 1               | 0                       | 0                 | 0                             | 7   | 1                         | 0                | 0                             |
| Public sector entities                              | 88                  | 62             | 144                           | 0                  | 0                 | 0                                 | 0               | 0                       | 23                | 0                             | 67  | 0                         | 0                | 0                             |
| developments banks                                  | 96                  | 0              | 0                             | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 0   | 0                         | 0                | 0                             |
| International<br>Organisations                      | 0                   | 0              | 0                             | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 0   | 0                         | 0                | 0                             |
| Institutions  | 35,789              | 0              | 3                             | 0                  | 0                 | 0                                 | 31              | 0                       | 0                 | 0                             | 0   | 0                         | 50               | 58                            |
| Corporates  | 7,645               | 3,915          | 665                           | 3,710              | 1,410             | 1,513                             | 4,126           | 6,121                   | 3,361             | 269                           | 798   | 925                       | 717              | 2,564                         |
| Retail  | 0                   | 0              | 0                             | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 0   | 0                         | 0                | 0                             |
| Secured by<br>mortgages<br>on immovable<br>property | 14                  | 324            | 0                             | 6                  | 7                 | 4                                 | 6               | 26                      | 22                | 0                             | 20  | 47                        | 0                | 2                             |
| Exposures in default                                | 29                  | 214            | 23                            | 138                | 37                | 12                                | 146             | 154                     | 160               | 9                             | 26  | 114                       | 13               | 33                            |
| Items associated with particularly high risk        | 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                             |
| Claims on institutions and corporates with a short  | 0                   | 0              | 0                             | 0                  | 0                 | 0                                 | 0               | 0                       | 0                 | 0                             | 0   | 0                         | 0                | 0                             |
| Claims in the form of CIU                           | 65                  | 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              | 10                            | 0                  | 0                 | 0                                 | 1               | 1                       | 1                 | 0                             | 3   | 0                         | 0                | 0                             |
| TOTAL SA<br>APPROACH                                | 43,741              | 4,538          | 5,120                         | 3,855              | 1,454             | 1,530                             | 4,310           | 6,301                   | 3,566             | 279                           | 925   | 1,087                     | 781              | 2,658                         |
| TOTAL   | 120,377             | 26,486         | 175,044                       | 15,313             | 7,149             | 9,412                             | 18,162          | 29,305                  | 15,819            | 4,772                         | 2,441   | 4,533                     | 9,400            | 17,124                        |

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|  |                                  |                     |       |                |                               | J1   | .12.2010            |   |          |                             |         |        |         |
|--|----------------------------------|---------------------|-------|----------------|-------------------------------|--|---------------------|---|----------|-----------------------------|---------|--------|---------|
| (In EUR m)   | Wood<br>and<br>paper<br>industry | Metals,<br>minerals | Media | Oil and<br>Gas | Health,<br>social<br>services | Business<br>services<br>(including<br>conglomerates) | Collective services | Personal<br>and<br>domestic<br>Services | Telecoms | Transport<br>&<br>logistics | Retail  | Others | Total   |
| Central governments  |                                  |                     |       |                |                               |  |                     |   |          |                             |         |        |         |
| and central banks  | 0                                | 0                   | 0     | 0              | 2,194                         | 2,532  | 0                   | 0                                       | 0        | 93                          | 0       | 187    | 167,290 |
| Instituti  | 0                                | 0                   | 7     | 0              | 48                            | 1,097  | 469                 | 1                                       | 0        | 452                         | 0       | 1,891  | 40,127  |
| Corporates   | 888                              | 9,252               | 3,346 | 20,214         | 2,649                         | 25,710   | 18,397              | 118                                     | 9,728    | 13,496                      | 0       | 8,775  | 289,319 |
| Retail   | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 144,396 | 0      | 144,396 |
| Equity Exposures IRB   | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 4,807  | 4,807   |
| TOTAL IRB<br>Approach  | 888                              | 9,252               | 3,353 | 20,214         | 4,891                         | 29,339   | 18,867              | 119                                     | 9,728    | 14,041                      | 144,396 | 15,660 | 645,939 |
| Central governments or central banks   | 0                                | 0                   | 0     | 0              | 48                            | 6  | 1                   | 0                                       | 0        | 0                           | 0       | 6,377  | 9,932   |
| Regional governments or local authorities  | 0                                | 0                   | 0     | 0              | 45                            | 29   | 1                   | 0                                       | 0        | 13                          | 0       | 128    | 1,047   |
| Public sector entities   | 0                                | 0                   | 0     | 0              | 77                            | 49   | 3                   | 1                                       | 0        | 7                           | 0       | 0      | 520     |
| Multilateral developments banks  | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 0      | 96      |
| International<br>Organisations   | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 0      | 0       |
| Institutions   | 0                                | 0                   | 0     | 0              | 0                             | 9  | 1                   | 0                                       | 0        | 0                           | 0       | 1,250  | 37,191  |
| Corporates   | 571                              | 2,480               | 486   | 1,780          | 1,094                         | 4,025  | 3,140               | 148                                     | 1,241    | 2,645                       | 0       | 11,172 | 66,521  |
| Retail   | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 39,175  | 0      | 39,175  |
| Secured by mortgages on immovable property   | 2                                | 2                   | 2     | 2              | 8                             | 33   | 22                  | 1                                       | 0        | 27                          | 13,250  | 0      | 13.828  |
| Exposures in default   | 14                               | 85                  | 15    | 3              | 20                            | 100  | 23                  | 5                                       | 15       | 92                          | 0       | 1,759  | 3,237   |
| Items associated with particularly high risk                                       | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 0      | 0,237   |
| Covered bonds  | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 0      | 0       |
| Claims on institutions<br>and corporates with<br>a short-term credit<br>assessment | 0                                | 0                   | 0     | 0              | 0                             | 0  |                     | 0                                       | 0        | 0                           | 0       | 0      | 0       |
| Claims in the form of CIU  | 0                                | 0                   | 0     | 0              | 0                             | 5  | 0                   | 0                                       | 0        | 0                           | 0       | 0      | 70      |
| Equity exposures   | 0                                | 0                   | 0     | 0              | 0                             | 0  | 0                   | 0                                       | 0        | 0                           | 0       | 1,946  | 1,946   |
| Other items  | 1                                | 1                   | 2     | 3              | 2                             | 26   | 5                   | 0                                       | 0        | 13                          | 0       | 22,109 | 22,177  |
| TOTAL SA<br>APPROACH   | 587                              | 2,568               | 506   | 1,787          | 1,294                         | 4,281  | 3,195               | 154                                     | 1,256    | 2,797                       | 52,426  | 44,742 | 195,741 |
| TOTAL  | 1,476                            | 11,820              | 3,859 | 22,002         | 6,185                         | 33,620   | 22,062              | 274                                     | 10,984   | 16,838                      | 196,822 | 60,402 | 841,680 |

## TABLE 48: AGEING OF PAST-DUE EXPOSURES (CR1-B)

|                 |                  |                        | 31.12                  | .2017                   |                        |          |
|-----------------|------------------|------------------------|------------------------|-------------------------|------------------------|----------|
|                 |                  |                        | Gross carry            | ing values              |                        |          |
| (In EUR m)      | ≤ <b>30 days</b> | > 30 days<br>≤ 60 days | > 60 days<br>≤ 90 days | > 90 days<br>≤ 180 days | > 180 days<br>≤ 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    |

| (In EUR m)      |                       | 31.12.2016             |                        |                         |                        |          |  |  |
|-----------------|-----------------------|------------------------|------------------------|-------------------------|------------------------|----------|--|--|
|                 | Gross carrying values |                        |                        |                         |                        |          |  |  |
|                 | ≤ <b>30 days</b>      | > 30 days<br>≤ 60 days | > 60 days<br>≤ 90 days | > 90 days<br>≤ 180 days | > 180 days<br>≤ 1 year | > 1 year |  |  |
| Loans           | 4,218                 | 1,173                  | 523                    | 1,857                   | 739                    | 3,704    |  |  |
| Debt securities | 0                     | 0                      | 0                      | 0                       | 0                      | 0        |  |  |
| TOTAL EXPOSURES | 4,218                 | 1,173                  | 523                    | 1,857                   | 739                    | 3,704    |  |  |

The amounts presented in the table above include technical unpaid, which primarily impact the category of unpaid under 31 days.

## TABLE 49: MATURITY OF EXPOSURES (CRB-E)

The exposures are presented out of retail and non-transactional elements.

As of December 31, 2017, 41% of the total net exposure to credit risk (excluding retail clientele) has a maturity of less than one year (compared to 37% in 2016) and 40% has a maturity of between one and five years (compared to 44% in 2016).

|   |           |           | 31.12.                 | 2017      |                    |         |  |  |  |  |  |  |
|---|-----------|-----------|------------------------|-----------|--------------------|---------|--|--|--|--|--|--|
|   |           |           | Net exposu             | re value  |                    |         |  |  |  |  |  |  |
| (In EUR m)  | On demand | <= 1 year | > 1 year<br><= 5 years | > 5 years | No stated maturity | Total   |  |  |  |  |  |  |
| Central governments and central banks                                     | 0         | 121,339   | 30,286                 | 22,496    | 0                  | 174,122 |  |  |  |  |  |  |
| Institutions  | 0         | 9,659     | 9,743                  | 10,904    | 0                  | 30,306  |  |  |  |  |  |  |
| Corporates  | 0         | 38,222    | 69,853                 | 37,139    | 0                  | 145,214 |  |  |  |  |  |  |
| Equity Exposures IRB  | 0         | 0         | 0                      | 0         | 4,833              | 4,833   |  |  |  |  |  |  |
| TOTAL IRB APPROACH  | 0         | 169,220   | 109,883                | 70,538    | 4,833              | 354,475 |  |  |  |  |  |  |
| Central governments or central banks                                      | 0         | 1,244     | 8,294                  | 368       | 0                  | 9,906   |  |  |  |  |  |  |
| Regional governments or local authorities                                 | 0         | 99        | 457                    | 300       | 0                  | 856     |  |  |  |  |  |  |
| Public sector entities  | 0         | 19        | 193                    | 270       | 0                  | 481     |  |  |  |  |  |  |
| Multilateral developments banks   | 0         | 10        | 0                      | 22        | 0                  | 32      |  |  |  |  |  |  |
| International Organisations   | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |  |  |  |
| Institutions  | 0         | 1,252     | 15,961                 | 12        | 0                  | 17,225  |  |  |  |  |  |  |
| Corporates  | 0         | 16,763    | 22,270                 | 7,133     | 0                  | 46,166  |  |  |  |  |  |  |
| Exposures in default  | 0         | 636       | 1,941                  | 80        | 0                  | 2,657   |  |  |  |  |  |  |
| Items associated with particularly high risk                              | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |  |  |  |
| Covered bonds   | 0         | 0         | 2                      | 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   | 0         | 20        | 23                     | 5         | 0                  | 48      |  |  |  |  |  |  |
| Equity exposures  | 0         | 0         | 0                      | 0         | 1,338              | 1,338   |  |  |  |  |  |  |
| TOTAL SA APPROACH   | 0         | 20,043    | 49,141                 | 8,190     | 1,338              | 78,712  |  |  |  |  |  |  |
| TOTAL   | 0         | 189,263   | 159,024                | 78,728    | 6,171              | 433,186 |  |  |  |  |  |  |

|   |           |           | Net exposu             | re value  |                    |         |  |  |  |
|---|-----------|-----------|------------------------|-----------|--------------------|---------|--|--|--|
| (In EUR m)  | On demand | <= 1 year | > 1 year<br><= 5 years | > 5 years | No stated maturity | Total   |  |  |  |
| Central governments and central banks                                     | 0         | 100,349   | 35,546                 | 27,303    | 0                  | 163,197 |  |  |  |
| Institutions  | 0         | 9,549     | 9,179                  | 11,605    | 0                  | 30,333  |  |  |  |
| Corporates  | 0         | 37,725    | 68,057                 | 37,059    | 0                  | 142,841 |  |  |  |
| Equity Exposures IRB  | 0         | 0         | 0                      | 0         | 4,783              | 4,783   |  |  |  |
| TOTAL IRB APPROACH  | 0         | 147,623   | 112,782                | 75,967    | 4,783              | 341,154 |  |  |  |
| Central governments or central banks                                      | 0         | 606       | 8 925                  | 371       | 0                  | 9,903   |  |  |  |
| Regional governments or local authorities                                 | 0         | 167       | 436                    | 361       | 0                  | 964     |  |  |  |
| Public sector entities  | 0         | 28        | 174                    | 307       | 0                  | 509     |  |  |  |
| Multilateral developments banks   | 0         | 0         | 80                     | 0         | 0                  | 80      |  |  |  |
| International Organisations   | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |
| Institutions  | 0         | 4,502     | 25,952                 | 148       | 0                  | 30,602  |  |  |  |
| Corporates  | 0         | 16,684    | 28,879                 | 6,531     | 0                  | 52,093  |  |  |  |
| Exposures in default  | 0         | 639       | 2,103                  | 279       | 0                  | 3,021   |  |  |  |
| Items associated with particularly high risk                              | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |
| Covered bonds   | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |
| Claims on institutions and corporates with a short-term credit assessment | 0         | 0         | 0                      | 0         | 0                  | -       |  |  |  |
| Claims in the form of CIU   | 0         | 21        | 45                     | 4         | 0                  | 70      |  |  |  |
| Equity exposures  | 0         | 0         | 0                      | 0         | 1,946              | 1,946   |  |  |  |
| TOTAL SA APPROACH   | 0         | 22,647    | 66,594                 | 8,001     | 1,946              | 99,188  |  |  |  |
| TOTAL   | 0         | 170,270   | 179,376                | 83,967    | 6,729              | 440,342 |  |  |  |

# TABLE 50: CREDIT RISK MITIGATION TECHNIQUES – OVERVIEW (CR3)

|                       |   |                                     | 31.12.2017                      |   |   |  |  |  |  |
|-----------------------|---|-------------------------------------|---------------------------------|---|---|--|--|--|--|
| (In EUR m)            | Exposures<br>unsecured<br>– Carrying amount | Exposures secured - Carrying amount | Exposures secured by Collateral | Exposures secured<br>by financial<br>guarantees | Exposures secured by credit derivatives |  |  |  |  |
| Total loans           | 432,811                                     | 166,691                             | 137,766                         | 28,805  | 120                                     |  |  |  |  |
| Total debt securities | 55,222                                      | 323                                 | 0                               | 323   | 0                                       |  |  |  |  |
| TOTAL EXPOSURES       | 488,034                                     | 167,014                             | 137,766                         | 29,128  | 120                                     |  |  |  |  |

| (In EUR m)            | Exposures<br>unsecured<br>– Carrying amount | Exposures secured<br>– Carrying amount | Exposures secured by Collateral | Exposures secured<br>by financial<br>guarantees | Exposures secured<br>by credit<br>derivatives |
|-----------------------|---|--|---------------------------------|---|---|
| Total loans           | 426,395                                     | 163,140                                | 136,247                         | 26,588  | 306   |
| Total debt securities | 64,405                                      | 364                                    | 93                              | 271   | 0   |
| TOTAL EXPOSURES       | 490,801                                     | 163,504                                | 136,339                         | 26,859  | 306   |

## TABLE 51: SPECIALISED LENDING AND EQUITIES UNDER THE SIMPLE RISK WEIGHT METHOD – IRB (CR10)

|   |  | 31.12.2017                                 |   |                            |                           |                    |                         |  |  |
|---|--|--|---|----------------------------|---------------------------|--------------------|-------------------------|--|--|
| (In EUR m)                                    | Specia   | lised lending                              |   |                            |                           |                    |                         |  |  |
| Regulatory categories                         | Remaining maturity   | On-balance<br>sheet<br>amount              | Off-balance<br>sheet<br>amount                      | Risk weight                | Exposure amount           | RWAs               | Expected<br>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 ris                 | k-weighted approach  |  |   |                            |                           |                    |                         |  |  |
| Categories                                    |  | On-balance<br>sheet<br>amount              | Off-balance<br>sheet<br>amount                      | Risk weight                | Exposure amount           | RWAs               | Capital<br>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   |  |  |   |                            | 4 000                     | 17,511             | 1,401                   |  |  |
| IUIAL   |  | 4,833                                      | 0   |                            | 4,833                     | 17,311             | 1,701                   |  |  |
| IUIAL   |  | 4,833                                      | 31.12.20  | 16                         | 4,833                     | 17,311             | 1,401                   |  |  |
| (In EUR m)                                    | Specia   | 4,833                                      |   | 16                         | 4,633                     | 17,311             | 1,401                   |  |  |
| (In EUR m)                                    | · · · · · ·  | lised lending On-balance sheet             | 31.12.20<br>Off-balance<br>sheet                    |                            | Exposure                  |                    | Expected                |  |  |
| (In EUR m)  Regulatory categories             | Remaining maturity   | lised lending On-balance sheet amount      | 31.12.20 Off-balance sheet amount                   | Risk weight                | Exposure amount           | RWAs               | Expected losses         |  |  |
|   | Remaining maturity Less than 2.5 years                                   | lised lending On-balance sheet amount      | 31.12.20<br>Off-balance<br>sheet<br>amount<br>1,271 | Risk weight 50%            | Exposure<br>amount<br>570 | RWAs<br>285        | Expected losses         |  |  |
| (In EUR m)  Regulatory categories  Category 1 | Remaining maturity  Less than 2.5 years  Equal to or more than 2.5 years | On-balance<br>sheet<br>amount<br>171<br>26 | 31.12.20  Off-balance sheet amount 1,271 57         | <b>Risk weight</b> 50% 70% | Exposure amount 570       | <b>RWAs</b> 285 26 | Expected losses         |  |  |
| (In EUR m)  Regulatory categories             | Remaining maturity Less than 2.5 years                                   | lised lending On-balance sheet amount      | 31.12.20<br>Off-balance<br>sheet<br>amount<br>1,271 | Risk weight 50%            | Exposure<br>amount<br>570 | RWAs<br>285        | Expected losses         |  |  |

| Regulatory categories | Remaining maturity              | sheet<br>amount | sheet<br>amount | Risk weight | Exposure amount | RWAs | Expected losses |
|-----------------------|---------------------------------|-----------------|-----------------|-------------|-----------------|------|-----------------|
| Category 1            | Less than 2.5 years             | 171             | 1,271           | 50%         | 570             | 285  | 0               |
|                       | Equal to or more than 2.5 years | 26              | 57              | 70%         | 38              | 26   | 0               |
| Category 2            | Less than 2.5 years             | 138             | 229             | 70%         | 232             | 162  | 1               |
|                       | Equal to or more than 2.5 years | 2               | 3               | 90%         | 3               | 3    | 0               |
| Category 3            | Less than 2.5 years             | 73              | 101             | 115%        | 109             | 125  | 3               |
|                       | Equal to or more than 2.5 years | 1               | 1               | 115%        | 1               | 1    | 0               |
| Category 4            | Less than 2.5 years             | 3               | 22              | 250%        | 9               | 23   | 1               |
|                       | Equal to or more than 2.5 years |                 | 0               | 250%        | 0               | 0    | 0               |
| Category 5            | Less than 2.5 years             | 28              | 2               | 0%          | 29              | 0    | 14              |
|                       | Equal to or more than 2.5 years |                 | 1               | 0%          | 0               | 0    | 0               |
| Total                 | Less than 2.5 years             | 413             | 1,624           |             | 949             | 596  | 19              |
|                       | Equal to or more than 2.5 years | 30              | 61              |             | 42              | 30   | 0               |

| Equities under the simple risk-weighted approach |                               |                                |             |                 |        |                      |
|--|-------------------------------|--------------------------------|-------------|-----------------|--------|----------------------|
| Categories                                       | On-balance<br>sheet<br>amount | Off-balance<br>sheet<br>amount | Risk weight | Exposure amount | RWAs   | Capital requirements |
| Private equity exposures                         | 233                           |                                | 190%        | 233             | 442    | 35                   |
| Exchange-traded equity exposures                 | 68                            |                                | 290%        | 68              | 199    | 16                   |
| Other equity exposures                           | 4,482                         | 24                             | 370%        | 4,499           | 16,647 | 1,332                |
| TOTAL  | 4,783                         | 24                             |             | 4,800           | 17,288 | 1,383                |

# TABLE 52: 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 (31.12.2016) | 156,087     | 12,487               |
| Asset size  | 5,216       | 417                  |
| Asset quality   | 592         | 47                   |
| Model updates   | (579)       | (46)                 |
| Methodology and policy                                  | 0           | 0                    |
| Acquisitions and disposals                              | (77)        | (6)                  |
| Foreign exchange movements                              | (3,293)     | (263)                |
| Other   | (3,000)     | (240)                |
| RWA as at end of reporting period (31.12.2017)          | 154,945     | 12,396               |

# Breakdown of credit risk – impaired exposures and impairments

TABLE 53: NON-PERFORMING AND FORBORNE EXPOSURES (CR1-E)

|   |                             |        | 31.12.2017         |                                   |                    | 31.12.2016         |                                   |
|---|-----------------------------|--------|--------------------|-----------------------------------|--------------------|--------------------|-----------------------------------|
| (In EUR m)  | (In EUR m)                  |        | Loans and advances | Off-balance<br>sheet<br>exposures | Debt<br>securities | Loans and advances | Off-balance<br>sheet<br>exposures |
| Gross carrying amount of performing and nonperforming exposures |                             | 58,111 | 626,417            | 437,935                           | 66,248             | 491,977            | 403,933                           |
| of which performing but<br>past due >30 days and<br><=90 days   |                             | 0      | 1,565              | 0                                 | 0                  | 1,412              | 0                                 |
| of which performing forborne                                    |                             | 0      | 1,004              | 16                                | 0                  | 921                | 111                               |
| of which non-performing   |                             | 130    | 20,729             | 2,657                             | 144                | 23,707             | 2,249                             |
| of which: defaulted   |                             | 130    | 20,729             | 2,657                             | 144                | 23,707             | 2,249                             |
| of which: impaired  |                             | 130    | 20,729             | 2,657                             | 144                | 23,707             | 2,249                             |
| of which: forborne  |                             | 0      | 4,853              | 308                               | 0                  | 5,584              | 235                               |
|   | On non-performing           | 43     | (1,355)            | (109)                             | 0                  | (1,534)            | (140)                             |
| Accumulated impairment  | of which: forborne          | 0      | 0                  | 0                                 | 0                  | 0                  | 0                                 |
| and provisions and negative fair value adjustments due          | On non-performing exposures | (105)  | (11,244)           | (308)                             | (90)               | (13,573)           | (308)                             |
| to credit risk  | of which: forborne          | 0      | (1,985)            | (14)                              | 0                  | (2,386)            | (30)                              |
| Collaterals and financial                                       | On non-performing exposures | 0      | 6,007              | 560                               | 0                  | 7,081              | 514                               |
| guarantees received   | of which: forborne          | 0      | 2,050              | 242                               | 0                  | 2,137              | 85                                |

# TABLE 54 CR2-A: CHANGES IN STOCK OF GENERAL AND SPECIFIC CREDIT RISK ADJUSTMENTS

|  | 31.12   | .2017  | 31.12.2016  |  |  |
|--|---|--|---|--|--|
| (In EUR m)   | Accumulated<br>Specific credit risk<br>adjustment | Accumulated<br>General credit risk<br>adjustment | Accumulated<br>Specific credit risk<br>adjustment | Accumulated<br>General credit<br>risk adjustment |  |
| Opening balance  | (13,663)  | (1,534)  | (14,332)  | (1,388)  |  |
| Increases due to amounts set aside for estimated loan losses during the period             | (5,183)   | (450)  | (4,964)   | (572)  |  |
| Decreases due to amounts reversed for estimated loan losses during the period              | 4,011   | 639  | 3,571   | 439  |  |
| Decreases due to amounts taken against accumulated credit risk adjustments                 | 3,087   | 0  | 2,216   | 0  |  |
| Transfers between credit risk adjustments  | (8)   | 0  | 0   | 0  |  |
| Impact of exchange rate differences  | 139   | 32   | (386)   | (19)   |  |
| Business combinations, including acquisitions and disposals of subsidiaries                | 24  | 0  | 22  | 0  |  |
| Other adjustments  | 244   | 1  | 210   | 6  |  |
| Closing balance  | (11,349)  | (1,312)  | (13,663)  | (1,534)  |  |
| Recoveries on credit risk adjustments recorded directly to the statement of profit or loss | 273   |  | 164   |  |  |
| Specific credit risk adjustments recorded directly to the statement of profit or loss      | (151)   |  | (255)   |  |  |

## TABLE 55: IMPAIRED ON-BALANCE SHEET EXPOSURES AND IMPAIRMENTS BY EXPOSURE CLASS AND COST OF RISK

|                              |                   | 31.12.2017   |        |                     |   |                      |  |  |  |  |
|------------------------------|-------------------|--------------|--------|---------------------|---|----------------------|--|--|--|--|
| Impaired exposure (In EUR m) | Standard approach | IRB approach | Total  | Specific impairment | Impairment for groups of homogeneous assets | Cost of risk<br>2017 |  |  |  |  |
| Sovereign                    | 20                | 871          | 891    | 66                  |   |                      |  |  |  |  |
| Institutions                 | 16                | 38           | 54     | 25                  |   |                      |  |  |  |  |
| Corporates                   | 3,340             | 5,823        | 9,163  | 5,210               |   |                      |  |  |  |  |
| Retail                       | 2,958             | 6,962        | 9,920  | 5,464               |   |                      |  |  |  |  |
| Others                       | 768               | 63           | 831    | 584                 |   |                      |  |  |  |  |
| TOTAL                        | 7,103             | 13,756       | 20,859 | 11,349              | 1,312                                       | 1,349                |  |  |  |  |

| Impaired exposure (In EUR m) | Standard approach | IRB approach | Total  | Specific impairment | Impairment for groups of<br>homogeneous assets | Cost of risk<br>2016 |
|------------------------------|-------------------|--------------|--------|---------------------|--|----------------------|
| Sovereign                    | 16                | 557          | 573    | 59                  |  |                      |
| Institutions                 | 31                | 42           | 72     | 42                  |  |                      |
| Corporates                   | 3,902             | 6,841        | 10,743 | 6,240               |  |                      |
| Retail                       | 3,189             | 7,265        | 10,454 | 5,645               |  |                      |
| Others                       | 1,003             | 1,005        | 2,009  | 1,677               |  |                      |
| TOTAL                        | 8,142             | 15,709       | 23,851 | 13,663              | 1,534  | 2,091                |

## TABLE 56: IMPAIRED ON-BALANCE SHEET EXPOSURES AND IMPAIRMENTS BY APPROACH AND BY GEOGRAPHIC REGION AND MAIN COUNTRIES

| _   | 31.12.2017           |                  |        |                   |              |                        |  |  |  |  |
|---|----------------------|------------------|--------|-------------------|--------------|------------------------|--|--|--|--|
|   | lm                   | paired exposures |        | Specific im       | pairment     | Specific<br>impairment |  |  |  |  |
| (In EUR m)                                    | Standard<br>approach | IRB approach     | Total  | Standard approach | IRB approach | Total                  |  |  |  |  |
| France  | 1,510                | 9,240            | 10,750 | 834               | 4,418        | 5,252                  |  |  |  |  |
| Germany                                       | 259                  | 110              | 369    | 82                | 48           | 130                    |  |  |  |  |
| Switzerland                                   | 15                   | 33               | 48     | 6                 | 6            | 12                     |  |  |  |  |
| Spain   | 36                   | 379              | 415    | 23                | 184          | 207                    |  |  |  |  |
| Italy   | 287                  | 748              | 1,035  | 196               | 493          | 689                    |  |  |  |  |
| United Kingdom                                | 45                   | 39               | 84     | 19                | 32           | 52                     |  |  |  |  |
| Luxembourg                                    | 3                    | 223              | 226    | 0                 | 163          | 163                    |  |  |  |  |
| Other Western European countries              | 69                   | 232              | 301    | 41                | 98           | 139                    |  |  |  |  |
| Romania                                       | 640                  | 35               | 676    | 430               | 6            | 436                    |  |  |  |  |
| Czech Republic                                | 134                  | 576              | 710    | 88                | 392          | 479                    |  |  |  |  |
| Other Eastern European countries EU           | 646                  | 22               | 669    | 403               | 15           | 418                    |  |  |  |  |
| Russia  | 834                  | 36               | 869    | 631               | 9            | 640                    |  |  |  |  |
| Other Eastern European countries excluding EU | 352                  | 222              | 574    | 274               | 155          | 429                    |  |  |  |  |
| Africa and Middle East                        | 2,176                | 641              | 2,816  | 1,645             | 153          | 1,798                  |  |  |  |  |
| The United States                             | 64                   | 723              | 787    | 16                | 205          | 221                    |  |  |  |  |
| Other countries of North America              | 0                    | 0                | 0      | 0                 | 0            | 0                      |  |  |  |  |
| Latin America and Carribbean                  | 13                   | 294              | 307    | 7                 | 84           | 92                     |  |  |  |  |
| Asia-Pacific                                  | 18                   | 205              | 223    | 82                | 111          | 193                    |  |  |  |  |
| TOTAL   | 7,103                | 13,756           | 20,859 | 4,777             | 6,572        | 11,349                 |  |  |  |  |

|   | lm                | npaired exposures | cific impairment | Specific impairment  |              |        |
|---|-------------------|-------------------|------------------|----------------------|--------------|--------|
| (In EUR m)                                    | Standard approach | IRB approach      | Total            | Standard<br>approach | IRB approach | Total  |
| France  | 1,635             | 9,777             | 11,412           | 997                  | 4,551        | 5,548  |
| Germany                                       | 240               | 128               | 368              | 69                   | 41           | 110    |
| Switzerland                                   | 6                 | 42                | 49               | 6                    | 5            | 11     |
| Spain   | 45                | 655               | 700              | 12                   | 221          | 233    |
| Italy   | 302               | 745               | 1,047            | 171                  | 462          | 634    |
| United Kingdom                                | 28                | 192               | 219              | 23                   | 54           | 77     |
| Luxembourg                                    | 9                 | 227               | 236              | 4                    | 118          | 122    |
| Other Western European countries              | 85                | 183               | 268              | 75                   | 90           | 165    |
| Romania                                       | 983               | 45                | 1,027            | 689                  | 19           | 708    |
| Czech Republic                                | 205               | 578               | 782              | 145                  | 408          | 553    |
| Other Eastern European countries EU           | 921               | 15                | 936              | 671                  | 8            | 679    |
| Russia  | 1,046             | 141               | 1,186            | 754                  | 21           | 775    |
| Other Eastern European countries excluding EU | 370               | 520               | 890              | 267                  | 510          | 777    |
| Africa and Middle East                        | 2,110             | 514               | 2,624            | 1,650                | 155          | 1,805  |
| The United States                             | 78                | 1,468             | 1,546            | 28                   | 1,055        | 1,083  |
| Other countries of North America              | 0                 | 0                 | 1                | 0                    | 0            | 0      |
| Latin America and Carribbean                  | 34                | 109               | 143              | 21                   | 46           | 67     |
| Asia-Pacific                                  | 46                | 373               | 418              | 179                  | 137          | 316    |
| TOTAL   | 8,142             | 15,709            | 23,851           | 5,762                | 7,901        | 13,663 |

# TABLE 57: IMPAIRED ON-BALANCE SHEET EXPOSURES BY INDUSTRY SECTOR

|   | 31.12.2017        |      | 31.12.2016        |      |
|---|-------------------|------|-------------------|------|
| (In EUR m)                                  | Impaired exposure | %    | Impaired exposure | %    |
| Finance & insurance                         | 279               | 1%   | 2,110             | 9%   |
| Real estate                                 | 838               | 4%   | 943               | 4%   |
| Public administration                       | 344               | 2%   | 90                | 0%   |
| Food & agriculture                          | 534               | 3%   | 569               | 2%   |
| Consumer goods                              | 459               | 2%   | 581               | 2%   |
| Chemicals, rubber and plastics              | 109               | 1%   | 114               | 0%   |
| Retail trade                                | 647               | 3%   | 609               | 3%   |
| Wholesale trade                             | 1,018             | 5%   | 1,278             | 5%   |
| Construction                                | 934               | 4%   | 912               | 4%   |
| Transport equip. Manuf.                     | 48                | 0%   | 54                | 0%   |
| Education and Associations                  | 38                | 0%   | 50                | 0%   |
| Hotels & Catering                           | 424               | 2%   | 347               | 1%   |
| Automobiles                                 | 71                | 0%   | 77                | 0%   |
| Machinery and equipment                     | 368               | 2%   | 372               | 2%   |
| Forestry, paper                             | 124               | 1%   | 102               | 0%   |
| Metals, minerals                            | 485               | 2%   | 533               | 2%   |
| Media                                       | 106               | 1%   | 108               | 0%   |
| Oil and Gas                                 | 252               | 1%   | 421               | 2%   |
| Health, social services                     | 42                | 0%   | 48                | 0%   |
| Business services (including conglomerates) | 876               | 4%   | 1,017             | 4%   |
| Collective services                         | 138               | 1%   | 233               | 1%   |
| Personal and domestic services              | 16                | 0%   | 18                | 0%   |
| Telecom                                     | 393               | 2%   | 32                | 0%   |
| Transport & logistics                       | 730               | 4%   | 859               | 4%   |
| Retail                                      | 9,920             | 48%  | 10,454            | 44%  |
| Others                                      | 1,665             | 8%   | 1,920             | 8%   |
| TOTAL                                       | 20,859            | 100% | 23,851            | 100% |

## 4.9 COUNTERPARTY RISK DETAIL

Amounts indicated in this section correspond solely to counterparty risk (i.e. without credit risk).

## Breakdown of counterparty risk - Overview

#### **TABLE 58: COUNTERPARTY RISK EXPOSURE BY EXPOSURE CLASS**

|                |          |        |        |          | 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 |  |

#### 31.12.2016

| (In EUR m)     |          | IRB    |        |          | Standard |       |          | Total   |        |
|----------------|----------|--------|--------|----------|----------|-------|----------|---------|--------|
| Exposure class | Exposure | EAD    | RWA    | Exposure | EAD      | RWA   | Exposure | EAD     | RWA    |
| Sovereign      | 10,442   | 10,442 | 235    | 56       | 56       | 1     | 10,498   | 10,498  | 236    |
| Institutions   | 19,639   | 19,639 | 4,411  | 38,213   | 38,213   | 941   | 57,852   | 57,852  | 5,352  |
| Corporates     | 51,010   | 51,010 | 14,754 | 4,754    | 4,754    | 4,344 | 55,764   | 55,764  | 19,098 |
| Retail         | 42       | 42     | 5      | 249      | 249      | 15    | 291      | 291     | 20     |
| Others         | 15       | 15     | 0      | 1,062    | 1,062    | 1,062 | 1,077    | 1,077   | 1,062  |
| TOTAL          | 81.148   | 81.148 | 19.406 | 44,333   | 44,333   | 6,363 | 125,481  | 125.481 | 25.770 |

The tables give the amounts excluding the CVA (Credit Value Adjustment). CVA amounted to EUR 3.8 billion at 31st December 2017 (vs. EUR 5.1 billion at 31st December 2016).

# **Breakdown counterparty risk - Detail**

## TABLE 59: 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

 $\ensuremath{\mathsf{CVA}}$  charges and exposures cleared through a  $\ensuremath{\mathsf{CCP}}$  are excluded.

|                                       | 31.12.2017       |                 |               |                |                     |       |                |  |  |  |
|---------------------------------------|------------------|-----------------|---------------|----------------|---------------------|-------|----------------|--|--|--|
| (In EUR m)                            | PD scale         | EAD post<br>CRM | Average<br>PD | Average<br>LGD | Average<br>maturity | RWA   | RWA<br>density |  |  |  |
| 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%            |  |  |  |

|                          |                  |                 | 31            | .12.2017       |                  |        |                |
|--------------------------|------------------|-----------------|---------------|----------------|------------------|--------|----------------|
| (In EUR m)               | PD scale         | EAD post<br>CRM | Average<br>PD | Average<br>LGD | Average maturity | RWA    | RWA<br>density |
| 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%            |

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|                                       | 31.12.2010       |                 |            |                 |                     |        |             |  |  |  |
|---------------------------------------|------------------|-----------------|------------|-----------------|---------------------|--------|-------------|--|--|--|
| (In EUR m)                            | PD scale         | EAD post<br>CRM | Average PD | Average LGD     | Average<br>maturity | RWA    | RWA density |  |  |  |
| Central governments and central banks | 0.00 to <0.15    | 10,188          | 0.01%      | 3.60%           | 1.71                | 115    | 1%          |  |  |  |
|                                       | 0.15 to < 0.25   |                 |            |                 |                     |        |             |  |  |  |
|                                       | 0.25 to < 0.50   | 71              | 0.26%      | 21.62%          | 1.00                | 13     | 18%         |  |  |  |
|                                       | 0.50 to < 0.75   | 5               | 0.50%      | 45.00%          | 0.04                | 2      | 44%         |  |  |  |
|                                       | 0.75 to <2.50    | 168             | 1.30%      | 26.83%          | 1.71                | 99     | 59%         |  |  |  |
|                                       | 2.50 to <10.00   | 10              | 3.29%      | 26.23%          | 1.03                | 7      | 70%         |  |  |  |
|                                       | 10.00 to <100.00 | 0               | 14.33%     | 85.00%          | 1.00                | 0      | 404%        |  |  |  |
|                                       | Sub-total        | 10,442          | 0.03%      | 4.14%           | 1.71                | 235    | 2%          |  |  |  |
| nstitutions                           | 0.00 to <0.15    | 16,828          | 0.05%      | 20.44%          | 2.10                | 2,138  | 13%         |  |  |  |
|                                       | 0.15 to <0.25    |                 |            |                 |                     |        |             |  |  |  |
|                                       | 0.25 to <0.50    | 1,097           | 0.26%      | 21.91%          | 1.97                | 520    | 47%         |  |  |  |
|                                       | 0.50 to <0.75    | 579             | 0.50%      | 43.34%          | 1.59                | 474    | 82%         |  |  |  |
|                                       | 0.75 to <2.50    | 768             | 1.48%      | 14.03%          | 1.96                | 833    | 109%        |  |  |  |
|                                       | 2.50 to <10.00   | 155             | 3.99%      | 30.97%          | 1.87                | 196    | 127%        |  |  |  |
|                                       | 10.00 to <100.00 | 45              | 17.80%     | 37.17%          | 2.98                | 101    | 224%        |  |  |  |
|                                       | Sub-total        | 19,473          | 0.20%      | 21.07%          | 2.07                | 4,262  | 22%         |  |  |  |
| Corporate – SME                       | 0.00 to <0.15    | 107             | 0.05%      | 62.23%          | 4.61                | 43     | 41%         |  |  |  |
| ONE ONE                               | 0.15 to <0.25    | 101             | 0.0070     | 02.2070         | 1.01                | 10     | 1170        |  |  |  |
|                                       | 0.25 to <0.50    | 18              | 0.26%      | 31.90%          | 2.56                | 6      | 32%         |  |  |  |
|                                       | 0.50 to <0.75    | 39              | 0.50%      | 32.62%          | 1.93                | 16     | 40%         |  |  |  |
|                                       | 0.75 to <2.50    | 98              | 1.61%      | 33.33%          | 2.38                | 67     | 69%         |  |  |  |
|                                       | 2.50 to <10.00   | 81              | 4.64%      | 35.30%          | 2.34                | 78     | 97%         |  |  |  |
|                                       | 10.00 to <100.00 | 19              | 19.29%     | 35.02%          | 2.52                | 30     | 158%        |  |  |  |
|                                       | Sub-total        | 362             | 2.56%      | 42.24%          | 2.99                | 240    | 66%         |  |  |  |
| Corporate – Specialised lending       | 0.00 to <0.15    | 302             | 2.30 /0    | <b>42.24</b> /0 | 2.33                | 240    | 0070        |  |  |  |
| our porate — opecialised lending      | 0.15 to <0.25    |                 |            |                 |                     |        |             |  |  |  |
|                                       | 0.25 to <0.50    | 101             | 0.26%      | 12.57%          | 1.01                | 11     | 11%         |  |  |  |
|                                       | 0.50 to <0.75    | 512             | 0.50%      | 8.39%           | 1.03                | 54     | 11%         |  |  |  |
|                                       | 0.75 to <2.50    | 253             | 1.65%      | 11.86%          | 1.55                | 72     | 29%         |  |  |  |
|                                       | 2.50 to <10.00   | 370             | 3.61%      | 6.74%           | 1.10                | 69     |             |  |  |  |
|                                       | 10.00 to <10.00  | 5               | 11.42%     | 4.03%           | 1.00                | 1      | 19%<br>18%  |  |  |  |
|                                       |                  |                 |            |                 |                     |        |             |  |  |  |
| Corporato Other                       | Sub-total        | 1,240           | 1.68%      | 8.93%           | 1.15                | 207    | 17%         |  |  |  |
| Corporate – Other                     | 0.00 to <0.15    | 34,364          | 0.05%      | 33.50%          | 1.83                | 4,998  | 15%         |  |  |  |
|                                       | 0.15 to <0.25    | 4 10 4          | 0.000/     | 00.450/         | 0.05                | 1.050  | 200/        |  |  |  |
|                                       | 0.25 to <0.50    | 4,184           | 0.26%      | 28.45%          | 2.35                | 1,258  | 30%         |  |  |  |
|                                       | 0.50 to <0.75    | 3,718           | 0.50%      | 31.36%          | 2.34                | 1,826  | 49%         |  |  |  |
|                                       | 0.75 to <2.50    | 4,268           | 1.52%      | 28.71%          | 2.50                | 2,869  | 67%         |  |  |  |
|                                       | 2.50 to <10.00   | 2,293           | 4.43%      | 30.31%          | 2.04                | 2,131  | 93%         |  |  |  |
|                                       | 10.00 to <100.00 | 307             | 15.43%     | 29.45%          | 2.69                | 478    | 156%        |  |  |  |
| D. H. OH. OME                         | Sub-total        | 49,134          | 0.53%      | 32.32%          | 1.99                | 13,559 | 28%         |  |  |  |
| Retail – Other non – SME              | 0.00 to <0.15    | 40              | 0.03%      | 100.00%         | 5.00                | 4      | 11%         |  |  |  |
|                                       | 0.15 to <0.25    |                 |            |                 |                     |        |             |  |  |  |
|                                       | 0.25 to <0.50    | 1               | 0.45%      | 100.00%         | 5.00                | 0      | 72%         |  |  |  |
|                                       | 0.50 to <0.75    |                 |            |                 |                     |        |             |  |  |  |
|                                       | 0.75 to <2.50    |                 |            |                 |                     |        |             |  |  |  |
|                                       | 2.50 to <10.00   |                 |            |                 |                     |        |             |  |  |  |
|                                       | 10.00 to <100.00 | 1               | 10.40%     | 24.00%          | 5.00                | 0      | 43%         |  |  |  |
|                                       | Sub-total        | 42              | 0.28%      | 98.23%          | 5.00                | 5      | 13%         |  |  |  |
| SECURITISATION POSITIONS              | Sub-total        | 15              |            |                 | _                   | 0      | 1%          |  |  |  |
| TOTAL                                 |                  | 80,708          | 0.41%      | 25.68%          | 1.96                | 18,509 | 23%         |  |  |  |

# TABLEAU 60 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.

|   |       |             |    |     |       |     |     | 3   | 1.12.2 | 017   |      |      |      |        |              |        |
|---|-------|-------------|----|-----|-------|-----|-----|-----|--------|-------|------|------|------|--------|--------------|--------|
| (In EUR m)  |       | Risk weight |    |     |       |     |     |     |        |       |      |      |      |        |              |        |
| Exposure Classes  | 0%    | 2%          | 4% | 10% | 20%   | 35% | 50% | 70% | 75%    | 100%  | 150% | 250% | 370% | 1 250% | Autres<br>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<br>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      |
| Equity exposures  | 0     | 0           | 0  | 0   | 0     | 0   | 65  | 0   | 0      | 1,136 | 2    | 0    | 0    | 0      | 0            | 1,203  |
| Expositions sur actions   | 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 |

### 31.12.2016

| (In EUR m)  |       |        |    |     |       |     |     | Risk | weight |       |      |      |      |        |              |        |
|---|-------|--------|----|-----|-------|-----|-----|------|--------|-------|------|------|------|--------|--------------|--------|
| Exposure Classes  | 0%    | 2%     | 4% | 10% | 20%   | 35% | 50% | 70%  | 75%    | 100%  | 150% | 250% | 370% | 1 250% | Autres<br>RW | Total  |
| Central governments or central banks                                      | 55    | 0      | 0  | 0   | 0     | 0   | 0   | 0    | 0      | 1     | 0    | 0    | 0    | 0      | 0            | 56     |
| Regional governments or local authorities                                 | 0     | 0      | 0  | 0   | 1     | 0   | 0   | 0    | 0      | 0     | 0    | 0    | 0    | 0      | 0            | 1      |
| Public sector entities  | 0     | 0      | 0  | 0   | 0     | 0   | 0   | 0    | 0      | 0     | 0    | 0    | 0    | 0      | 0            | 0      |
| Multilateral Development<br>Banks   | 0     | 0      | 0  | 0   | 0     | 0   | 0   | 0    | 0      | 4     | 0    | 0    | 0    | 0      | 0            | 4      |
| International Organisations   | 0     | 0      | 0  | 0   | 0     | 0   | 0   | 0    | 0      | 0     | 0    | 0    | 0    | 0      | 0            | 0      |
| Institutions  | 3,907 | 18,080 | 0  | 0   | 1,675 | 0   | 246 | 0    | 0      | 62    | 0    | 0    | 0    | 0      | 14,239       | 38,208 |
| Corporates  | 0     | 138    | 0  | 0   | 269   | 0   | 94  | 0    | 0      | 4,232 | 1    | 0    | 0    | 0      | 20           | 4,754  |
| Retail  | 0     | 0      | 0  | 0   | 0     | 0   | 0   | 0    | 1      | 1     | 0    | 0    | 0    | 0      | 247          | 249    |
| 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      | 1 062 | 0    | 0    | 0    | 0      | 0            | 1 062  |
| 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   | 3,961 | 18,218 | 0  | 0   | 1,945 | 0   | 340 | 0    | 1      | 5,362 | 1    | 0    | 0    | 0      | 14,506       | 44,333 |

# TABLE 61: ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (CCR1)

|   |          |   | 31  | .12.2017 |            |                 |        |
|---|----------|---|---|----------|------------|-----------------|--------|
| (In EUR m)  | Notional | Replacement cost<br>/ current market<br>value | Potential<br>future<br>credit<br>exposure | EEPE     | Multiplier | EAD post<br>CRM | RWAs   |
| Mark to market  |          | 16,812  | 16,261                                    |          |            | 30,313          | 10,001 |
| Original exposure                                     |          |   |   |          |            |                 |        |
| Standardised approach                                 |          |   |   |          |            |                 |        |
| IMM (for derivatives and SFTs)                        |          |   |   | 33,072   | 1.5        | 49,608          | 11,515 |
| Of which securities financing transactions            |          |   |   | 22,587   | 1.5        | 33,881          | 10,186 |
| Of which derivatives and long settlement transactions |          |   |   | 10,485   | 1.5        | 15 728          | 1 329  |
| Of which from contractual cross - product netting     |          |   |   |          |            |                 |        |
| Financial collateral simple method (for SFTs)         |          |   |   |          |            |                 |        |
| Financial collateral comprehensive method (for SFTs)  |          |   |   |          |            | 6,856           | 1,376  |
| VaR for SFTs  |          |   |   |          |            |                 |        |
| TOTAL   |          |   |   |          |            |                 | 22,892 |

# TABLE 62: COUNTERPARTY RISK EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES

| (In EUR m)                          | 31.12.2017 | 31.12.2016 |  |  |
|-------------------------------------|------------|------------|--|--|
| Counterparty Risk                   | EAD        | EAD        |  |  |
| France                              | 18,605     | 19,995     |  |  |
| United Kingdom                      | 15,624     | 18,104     |  |  |
| Germany                             | 9,502      | 7,542      |  |  |
| Luxembourg                          | 9,484      | 8,947      |  |  |
| Other Western European countries    | 12,831     | 13,268     |  |  |
| Czech Republic                      | 3,772      | 960        |  |  |
| Other Eastern European countries EU | 777        | 1,109      |  |  |
| Eastern Europe excluding EU         | 2,554      | 1,472      |  |  |
| Africa and Middle East              | 1,354      | 1,503      |  |  |
| United States                       | 24,546     | 36,856     |  |  |
| Other countries of North America    | 1,329      | 2,584      |  |  |
| Latin America and Caribbean         | 1,596      | 1,325      |  |  |
| Japan                               | 2,854      | 3,401      |  |  |
| Asia-Pacific                        | 8,566      | 8,415      |  |  |
| TOTAL                               | 113,393    | 125,481    |  |  |

## TABLEAU 63 CCR8: EXPOSURES AND RWA TO CENTRAL COUNTERPARTIES (CCP)

|   | 31.12.201         | 7     | 31.12.2016        | <b>i</b> |
|---|-------------------|-------|-------------------|----------|
| (In EUR m)  | EAD<br>(post-CRM) | RWA   | EAD<br>(post-CRM) | RWA      |
| Exposures to QCCP's   | 38,255            | 1,759 | 52,163            | 1,455    |
| Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which     | 18,267            | 368   | 32,415            | 327      |
| OTC derivatives   | 1,927             | 42    | 1,442             | 29       |
| Exchange-traded derivatives   | 15,451            | 309   | 30,587            | 291      |
| <ul> <li>Securities financing transactions</li> </ul>   | 889               | 18    | 386               | 8        |
| <ul> <li>Netting sets where cross-product netting has been approved</li> </ul>                        | -                 | -     | -                 | -        |
| Segregated initial margin   | 5,659             | -     | 5,628             | -        |
| Non-segregated initial margin   | 11,150            | 228   | 11,484            | 231      |
| Pre-funded default fund contributions   | 3,179             | 1,163 | 2,636             | 896      |
| Alternative calculation of own funds requirements for exposures                                       | -                 | 53    | -                 | 24       |
| Exposured to non-QCCPs  |                   |       |                   |          |
| Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which |                   | -     | 20                | 20       |
| <ul> <li>OTC derivatives</li> </ul>   | -                 | -     | 20                | 20       |
| Exchange-traded derivatives   | -                 | -     | -                 | -        |
| <ul> <li>Securities financing transactions</li> </ul>   | -                 | -     | -                 | -        |
| <ul> <li>Netting sets where cross-product netting has been approved</li> </ul>                        | -                 | -     | -                 | -        |
| Segregated initial margin   | -                 | -     | -                 | -        |
| Non-segregated initial margin   | -                 | -     | 2                 | 2        |
| Pre-funded default fund contributions   | -                 | -     | 0                 | 2        |
| Unfunded default fund contributions   | -                 | -     | -                 | 2        |

The significant variation in exposures to qualified CCP's is due to a change in the method of operations with the clearing houses on behalf of customers (following the publication of an EBA Q&A).

## **TABLE 64: CREDIT DERIVATIVES EXPOSURES (CCR6)**

|                                  | 31.12.2017        |                 |                          |  |  |  |  |  |
|----------------------------------|-------------------|-----------------|--------------------------|--|--|--|--|--|
|                                  | Credit derivati   | ve hedges       | Other credit derivatives |  |  |  |  |  |
| (In EUR m)                       | Protection bought | Protection sold | uerivatives              |  |  |  |  |  |
| Notionals                        |                   | _               |                          |  |  |  |  |  |
| Single-name credit default swaps | 90,818            | 95,046          | 2,185                    |  |  |  |  |  |
| Index credit default swaps       | 38,406            | 44,797          | 1,793                    |  |  |  |  |  |
| Total return swaps               | 997               | 0               | 0                        |  |  |  |  |  |
| Credit options                   | 7,206             | 8,436           | 0                        |  |  |  |  |  |
| Other credit derivatives         | 11,403            | 7,056           | 0                        |  |  |  |  |  |
| TOTAL NOTIONALS                  | 148,832           | 155,336         | 3,978                    |  |  |  |  |  |
| FAIR VALUES                      |                   |                 |                          |  |  |  |  |  |
| Positive fair value (asset)      | 554               | 4,293           | 101                      |  |  |  |  |  |
| Negative fair value (liability)  | (3,950)           | (480)           | (115)                    |  |  |  |  |  |

## TABLE 65: CREDIT DERIVATIVES EXPOSURES – PROTECTIONS BOUGHT

|                | 3                   | 31.12.2017                                   |  |  |  |
|----------------|---------------------|--|--|--|--|
|                | Credit derivative h | Credit derivative hedges (protection bought) |  |  |  |
| (In EUR m)     | Notion              | inel EAD                                     |  |  |  |
| Class exposure |                     |  |  |  |  |
| Sovereign      | 1,                  | 198 46                                       |  |  |  |
| Institutions   | 128,                | 379 52                                       |  |  |  |
| Corporates     | 19,                 | 255 236                                      |  |  |  |
| Retail         |                     | 0 0  |  |  |  |
| Others         |                     | 0 0  |  |  |  |
| TOTAL          | 148,8               | 334  |  |  |  |

## TABLE 66: IMPACT OF NETTING AND COLLATERAL HELD ON EXPOSURE VALUES (CCR5-A)

|                       |  | 31.12.2017          |                                |                    |                     |  |  |  |
|-----------------------|--|---------------------|--------------------------------|--------------------|---------------------|--|--|--|
| (In EUR m)            | Gross positive fair value or net carrying amount | Netting<br>benefits | Netted current credit exposure | Collateral<br>held | Net credit exposire |  |  |  |
| Derivatives           | 284,514  | 243,693             | 40,820                         | 30,378             | 30,913              |  |  |  |
| SFTs                  | 367,194  | 10,161              | 357,032                        | 306,717            | 50,315              |  |  |  |
| Cross-product netting | 0  | 0                   | 0                              | 0                  | 0                   |  |  |  |
| TOTAL                 | 651,707  | 253,855             | 397,853                        | 337,096            | 81,229              |  |  |  |

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."

## TABLE 67: 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<br>– IRB IMM | RWA amounts<br>- IRB hors IMM | RWA amounts<br>– Total IRB | Capital<br>requirements<br>– IRB IMM | Capital<br>requirements<br>– IRB hors IMM | Capital<br>requirements<br>– Total IRB |
|---|--------------------------|-------------------------------|----------------------------|--------------------------------------|---|--|
| RWA as at end of previous reporting period (31.12.2016) | 14,402                   | 5,004                         | 19,406                     | 1,152                                | 400                                       | 1,553                                  |
| Asset size  | (1,635)                  | 543                           | (1,092)                    | (131)                                | 43  | (87)                                   |
| Credit quality of counterparties                        | (74)                     | (5)                           | (79)                       | (6)                                  | 0   | (6)                                    |
| Model updates   | (50)                     | 0                             | (50)                       | (4)                                  | 0   | (4)                                    |
| Methodology and policy                                  | (2,525)                  | 0                             | (2,525)                    | (202)                                | 0   | (202)                                  |
| Acquisitions and disposals                              | 0                        | (12)                          | (12)                       | 0                                    | (1)                                       | (1)                                    |
| Foreign exchange movements                              | (891)                    | (217)                         | (1,108)                    | (71)                                 | (17)                                      | (89)                                   |
| Other   | 2,287                    | (94)                          | 2,194                      | 183                                  | (7)                                       | 175                                    |
| RWA AS AT END OF REPORTING<br>PERIOD (31.12.2017)       | 11,515                   | 5,219                         | 16,734                     | 921                                  | 418                                       | 1,339                                  |

The table above presents the data without the CVA (Credit Value Adjustment) which is EUR 2.9 billion in advanced method.

## TABLE 68 CCR2: CREDIT VALUATION ADJUSTMENT (CVA)

|  | 31.12.2017     |       | 31.12.2016 |       |  |
|--|----------------|-------|------------|-------|--|
| (In EUR m)   | Exposure value | RWA   | Exposition | RWA   |  |
| Total portfolios subject to the Advanced Method          | 24,068         | 2,861 | 27,823     | 2,846 |  |
| (i) VaR component (including the 3×multiplier)           |                | 203   |            | 784   |  |
| (ii) Stressed VaR component (including the 3×multiplier) |                | 2,658 |            | 2,063 |  |
| All portfolios subject to the Standardised Method        | 8,609          | 898   | 10,234     | 2,243 |  |
| Based on Original Exposure Method                        |                |       | 0          | 0     |  |
| TOTAL SUBJECT TO THE CVA CAPITAL CHARGE                  | 32,677         | 3,760 | 38,057     | 5,089 |  |

# **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-2017.

EUR **163** m

(Amount at end-2016: EUR 178 m)

Regulatory capital requirements for securitisations held or acquired in the trading book at end-2017.

(Amount at end-2016: EUR 21 m)

## 5.1 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 2017, 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 will be issued by the technical authorities, ESMA and the EBA, to clarify some aspects of the new European regulations. The EBA is due to set out a framework for the interpretation of STS criteria to be applied as standard in all member states.

## **5.2** 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.

After initial recognition, securitisation positions booked to "Loans and receivables" are measured at amortised cost using the effective interest rate method. Impairment may be recorded if appropriate.

Securitisation positions booked to "Available-for-sale financial assets" are measured at their fair value at the balance sheet date. Interest accrued or paid on debt securities booked to "Available-for-sale financial assets" is recognised in the income statement using the effective interest rate method under "Interest and similar income". Changes in fair value other than income are recorded in shareholders' equity under "Gains and losses recognised directly in equity".

The Group only records these changes in fair value in the income statement when the asset is sold or impaired, in which case they are reported as "Net gains or losses on available-for-sale financial assets". When a decline in the fair value of an available-for-sale financial asset has been recognised directly in shareholders' equity under "Gains and losses recognised directly in equity" and subsequent objective evidence of impairment emerges, the Group recognises the total accumulated unrealised loss previously booked to shareholders' equity in the income statement under "Cost of risk" for debt instruments, and under "Net gains and losses on available for-sale financial assets" for equity securities.

This cumulative loss is measured as the difference between acquisition cost (net of any repayments of principal and amortisation) and the current fair value, less any impairment of the financial asset that has already been booked through profit or loss.

For assets transferred from another accounting category to "Loans and receivables" or to "Available-for-sale financial assets", amortised cost is determined based on estimated future cash flows determined at the date of reclassification. The estimated future cash flows are reviewed at each balance sheet date. In the event of an increase in estimated future cash flows, as a result of an increase in their recoverability, the effective interest rate is adjusted prospectively. However, where there is objective evidence of impairment due to an event occurring after the reclassification of the financial assets under consideration, and when said event has an adverse impact on initially estimated future cash flows, an impairment is booked to "Cost of risk" on the income statement

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.

## **5.3** 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.

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.

## 5.4 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 8 of this document (p.191).

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 9 of this document (p.197).

## 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 7 of this document (p.183)

SECURITISATION

## 5.5 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.

## **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 2017, one securitisation transaction was carried out: EUR 9.2 billion securitisation of residential mortgage loans. The securities issued are eligible for European Central Bank refinancing operations.

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 15.2 billion as at 31 December 2017, including EUR 8.7 billion in French residential mortgages, EUR 0.9 billion in auto loans, EUR 3.5 billion in consumer loans and EUR 2.0 billion in auto lease receivables and related residual values.

The Group also has two synthetic securitisation programs in which the risk is transferred using credit derivatives and where the portfolio is retained in the Group's balance sheet.

The securitised stock of these transactions amounts to EUR 0.4 billion as of December 31 2017, and mainly comprised loans to corporates.

## Societe Generale as sponsor

The Societe Generale Group carries out transactions on behalf of its customers or investors. As of 31 December 2017, 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 11,995 million as of 31 December 2017 (EUR 12,683 million as of 31 December 2016).

As part of the implementation of the new IFRS 10 on 1 January 2014, Societe Generale has consolidated the 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. Societe Generale bears part of the risk through liquidity lines in the amount of EUR 18,257 million as of 31 December 2017 (EUR 16,773 million as of 31 December 2016).

ABCP activity remained solid in 2017, with newly securitised outstandings predominantly comprising trade receivables, leasing or consumer loans.

### Societe Generale as investor

In 2017, Societe Generale continued to reduce its legacy assets portfolio managed in runoff, through natural amortisation and asset disposals. The legacy portfolio amounted to only EUR 0.7 billion as of 31 December 2017, including EUR 0.4 billion from securitisation activity, with less than EUR 0.1 billion rated under investment grade. Therefore, the portfolio is no longer classified under major risk by the Group.

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 287), les définitions et le périmètre retenus étant différents.

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

**TOTAL** 

trading book. These tables only present the exposures with an impact on Group's regulatory capital.

## TABLE 69: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES BY EXPOSURE CLASS

| (In EUR m)                   |                | 31.12.2017 |                |            |                 |            |                         |         |  |  |  |  |
|------------------------------|----------------|------------|----------------|------------|-----------------|------------|-------------------------|---------|--|--|--|--|
|                              |                | Bankin     | g Book         |            | Trading Book    |            |                         |         |  |  |  |  |
|                              | Traditional tr | ansactions | Synthethic tra | ansactions | Traditional tra | ansactions | 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       |  |  |  |  |

| (In EUR m)                   |                 |            |                | 31.13      | 2.2016          |            |                | Ansactions Sponsor 0 0 |  |  |  |
|------------------------------|-----------------|------------|----------------|------------|-----------------|------------|----------------|------------------------|--|--|--|
|                              |                 | Bankin     | g Book         |            |                 | Tradin     | g Book         | Originator Sponso  O   |  |  |  |
|                              | Traditional tra | ansactions | Synthethic tra | ansactions | Traditional tra | ansactions | Synthethic tra | nsactions              |  |  |  |
| Underlying assets            | Originator      | Sponsor    | Originator     | Sponsor    | Originator      | Sponsor    | Originator     | Sponsor                |  |  |  |
| Residential mortgages        | 0               | 92         | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Commercial mortgages         | 0               | 0          | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Credit card receivables      | 0               | 1,877      | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Leasing                      | 0               | 1,026      | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Loans to corporates and SMEs | 0               | 655        | 171            | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Consumer loans               | 0               | 7,210      | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Trade receivables            | 0               | 4,557      | 0              | 0          | 0               | 0          | 0              | 0                      |  |  |  |
| Other assets                 | 0               | 1,207      | 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                      |  |  |  |

171

0

0

0

0

0

16,624

# TABLE 70: AMOUNTS PAST DUE OR IMPAIRED WITHIN THE EXPOSURES SECURITISED BY EXPOSURE TYPE

| (In EUR m)                   |            | 31.12   | .2017      |         |            | 31.12    | 2.2016     | 016      |  |  |  |
|------------------------------|------------|---------|------------|---------|------------|----------|------------|----------|--|--|--|
| Underlying assets            | Past o     | lue     | Impai      | red     |            | Past due |            | Impaired |  |  |  |
|                              | 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          | 13      | 0          | 16      | 0          | 14       | 0          | 16       |  |  |  |
| Leasing                      | 0          | 10      | 0          | 3       | 0          | 1        | 0          | 1        |  |  |  |
| Loans to corporates and SMEs | 0          | 3       | 0          | 2       | 0          | 4        | 0          | 5        |  |  |  |
| Consumer loans               | 0          | 91      | 0          | 35      | 0          | 77       | 0          | 48       |  |  |  |
| Trade receivables            | 0          | 827     | 0          | 235     | 0          | 661      | 0          | 220      |  |  |  |
| Other assets                 | 0          | 3       | 0          | 2       | 0          | 1        | 0          | 0        |  |  |  |
| Covered bonds                | 0          | 0       | 0          | 0       | 0          | 0        | 0          | 0        |  |  |  |
| Other liabilites             | 0          | 0       | 0          | 0       | 0          | 0        | 0          | 0        |  |  |  |
| TOTAL                        | 0          | 947     | 0          | 293     | 0          | 758      | 0          | 290      |  |  |  |

In 2017, securitisased exposures have not been the subject of a loss recognised by Société Générale.

# TABLE 71: ASSETS AWAITING SECURITISATION

| (In EUR m)                   | 31.12.2017 | 31.12.2016 | 31.12.2017  | 31.12.2016 |
|------------------------------|------------|------------|-------------|------------|
| Underlying assets            | Banking    | book       | Trading boo | k          |
| 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 72: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE BANKING BOOK

| (In EUR m)                   |                     | 31.12.2017           |        |                     |                      |        |
|------------------------------|---------------------|----------------------|--------|---------------------|----------------------|--------|
| Underlying assets            | On-balance<br>sheet | Off-balance<br>sheet | Total  | On-balance<br>sheet | Off-balance<br>sheet | Total  |
| Residential mortgages        | 95                  | 298                  | 393    | 433                 | 94                   | 527    |
| Commercial mortgages         | 69                  | 0                    | 69     | 76                  | 0                    | 76     |
| Credit card receivables      | 0                   | 1,774                | 1,774  | 0                   | 1,877                | 1,877  |
| Leasing                      | 0                   | 1,937                | 1,937  | 0                   | 1,027                | 1,027  |
| Loans to corporates and SMEs | 85                  | 609                  | 694    | 212                 | 655                  | 867    |
| Consumer loans               | 46                  | 6,877                | 6,923  | 53                  | 7,169                | 7,222  |
| Trade receivables            | 0                   | 5,953                | 5,953  | 0                   | 4,557                | 4,557  |
| Other assets                 | 286                 | 1,060                | 1,346  | 1,409               | 1,208                | 2,617  |
| Covered bonds                | 0                   | 0                    | 0      | 0                   | 0                    | 0      |
| Other liabilites             | 0                   | 0                    | 0      | 0                   | 0                    | 0      |
| TOTAL                        | 581                 | 18,508               | 19,089 | 2,183               | 16,587               | 18,770 |

At 31 December 2017, securitisation exposures in the banking book amounted to EUR 19,089 million, including EUR 581 million recorded on the balance sheet, the rest consisting predominantly of liquidity lines linked to the Group's sponsor conduit activity.

Exposures are concentrated in underlying assets comprised of securitisations, corporate and SME loans, consumer loans and residential mortgages.

In 2017, banking book exposures increased by EUR 319 million, up 2% year-on-year.

The volume of assets of conduits managed by the Group increased, mainly in trade receivables, partially offset by a decline in securitisation assets.

In 2017, the Group continued its legacy asset disposal programme. The portfolio of securitisations in runoff was reduced over the year, mainly the following underlyings: residential mortgages (RMBS), commercial mortgages (CMBS), re-securitisations (CDOs), loans to corporates (CLOs) and consumer loans.

## TABLE 73: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED BY TYPE OF UNDERLYING IN THE TRADING BOOK

| (In EUR m)                   | 31.12.2            | 017                 | 31.12.2016         |                     |  |
|------------------------------|--------------------|---------------------|--------------------|---------------------|--|
| Underlying assets            | Net long positions | Net short positions | Net long positions | Net short positions |  |
| Residential mortgages        | 100                | 1                   | 35                 | 1                   |  |
| Commercial mortgages         | 33                 | 69                  | 21                 | 51                  |  |
| Credit card receivables      | 14                 | 0                   | 14                 | 0                   |  |
| Leasing                      | 11                 | 0                   | 8                  | 0                   |  |
| Loans to corporates and SMEs | 172                | 2                   | 136                | 3                   |  |
| Consumer loans               | 5                  | 0                   | 11                 | 0                   |  |
| Trade receivables            | 9                  | 0                   | 0                  | 0                   |  |
| Other assets                 | 1                  | 0                   | 153                | 4                   |  |
| Covered bonds                | 126                | 7                   | 0                  | 0                   |  |
| Other liabilites             | 0                  | 0                   | 0                  | 0                   |  |
| TOTAL                        | 471                | 79                  | 378                | 59                  |  |

TABLE 74: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED BY REGION IN THE BANKING BOOK AND THE TRADING

| (In EUR m)        |              | 31.12.2017     |                 | 31.12.2016   |                |                 |
|-------------------|--------------|----------------|-----------------|--------------|----------------|-----------------|
|                   |              | Trading        | j book          | _            |                | Trading book    |
| Underlying assets | Banking book | Long positions | Short positions | Banking book | Long positions | Short positions |
| America           | 9,919        | 259            | 78              | 11,175       | 282            | 58              |
| Asia              | 41           | 40             | 0               | 603          | 25             | 0               |
| Europe            | 9,060        | 50             | 1               | 6,898        | 39             | 1               |
| Others            | 70           | 122            | 0               | 94           | 56             | 0               |
| TOTAL             | 19,089       | 471            | 79              | 18,770       | 378            | 59              |

Growth of the Banking book is mainly concentrated in Europe (up 31%), partially offset by a decline of 11% in the Americas.

## TABLE 75: QUALITY OF SECURITISATION POSITIONS RETAINED OR PURCHASED BANKING BOOK

31.12.2017 (In EUR m) **Exposure At Default (EAD)** Nominal Highest-Highest-Initial loss tranche Mezzanine **Initial loss** Mezzanine ranking ranking **Underlying assets** tranche tranche tranche tranche tranche Residential mortgages 359 34 0 312 31 0 0 Commercial mortgages 9 60 0 9 15 1,741 Credit card receivables 33 0 1,741 33 0 Leasing 1,834 103 0 1,834 103 0 9 Loans to corporates and SMEs 47 9 638 46 638 Consumer loans 6,837 86 0 6,837 78 0 Trade receivables 5,953 0 0 5,953 0 0 2 0 Other assets 1,345 0 1,345 0 0 0 Covered bonds 0 0 0 0 Other liabilites 0 0 0 0 0 0 **TOTAL** 18,716 364 9 18,669 305 9

(In EUR m) 31.12.2016

|                              |                                | Nominal              |                         | Expos                          | D)                   |                         |
|------------------------------|--------------------------------|----------------------|-------------------------|--------------------------------|----------------------|-------------------------|
| Underlying assets            | Highest-<br>ranking<br>tranche | Mezzanine<br>tranche | Initial loss<br>tranche | Highest-<br>ranking<br>tranche | Mezzanine<br>tranche | Initial loss<br>tranche |
| Residential mortgages        | 491                            | 36                   | 0                       | 467                            | 32                   | 0                       |
| Commercial mortgages         | 16                             | 60                   | 0                       | 17                             | 15                   | 0                       |
| Credit card receivables      | 1,842                          | 35                   | 0                       | 1,841                          | 35                   | 0                       |
| Leasing                      | 924                            | 103                  | 0                       | 924                            | 103                  | 0                       |
| Loans to corporates and SMEs | 728                            | 122                  | 17                      | 728                            | 121                  | 17                      |
| Consumer loans               | 7,129                          | 93                   | 0                       | 7,128                          | 84                   | 0                       |
| Trade receivables            | 4,557                          | 0                    | 0                       | 4,555                          | 0                    | 0                       |
| Other assets                 | 2,600                          | 17                   | 0                       | 1,744                          | 4                    | 0                       |
| Covered bonds                | 0                              | 0                    | 0                       | 0                              | 0                    | 0                       |
| Other liabilites             | 0                              | 0                    | 0                       | 0                              | 0                    | 0                       |
| TOTAL                        | 18,287                         | 466                  | 17                      | 17,404                         | 394                  | 17                      |

In the banking book, senior tranches made up 98% of securitisation positions retained or purchased as of 31 December 2017. It mainly comes from trade receivables and consumer loans.

## TABLE 76: QUALITY OF SECURITISATION POSITIONS RETAINED OR PURCHASED TRADING BOOK

31.12.2017 (In EUR m) **Net long positions Net short positions Highest-ranking** Initial lossHighest-ranking **Initial loss** Mezzanine **Tranche Underlying assets** tranche tranche tranche tranche mezzanine tranche Residential mortgages Commercial mortgages Credit card receivables Leasing Loans to corporates and SMEs Consumer loans Trade receivables Other assets Covered bonds Other liabilites **TOTAL** 

(In EUR m) 31.12.2016

|                              | Ne                         | t long positions     |                         | S                       |                      |                         |
|------------------------------|----------------------------|----------------------|-------------------------|-------------------------|----------------------|-------------------------|
| Underlying assets            | Highest-ranking<br>tranche | Mezzanine<br>tranche | Initial loss<br>tranche | Highest-ranking tranche | Mezzanine<br>tranche | Initial loss<br>tranche |
| Residential mortgages        | 12                         | 24                   | 0                       | 1                       | 0                    | 0                       |
| Commercial mortgages         | 13                         | 9                    | 0                       | 4                       | 47                   | 0                       |
| Credit card receivables      | 0                          | 14                   | 0                       | 0                       | 0                    | 0                       |
| Leasing                      | 8                          | 0                    | 0                       | 0                       | 0                    | 0                       |
| Loans to corporates and SMEs | 34                         | 102                  | 0                       | 0                       | 3                    | 0                       |
| Consumer loans               | 0                          | 11                   | 0                       | 0                       | 0                    | 0                       |
| Trade receivables            | 0                          | 0                    | 0                       | 0                       | 0                    | 0                       |
| Other assets                 | 66                         | 87                   | 0                       | 0                       | 4                    | 0                       |
| Covered bonds                | 0                          | 0                    | 0                       | 0                       | 0                    | 0                       |
| Other liabilites             | 0                          | 0                    | 0                       | 0                       | 0                    | 0                       |
| TOTAL                        | 132                        | 246                  | 0                       | 5                       | 54                   | 0                       |

Positions in the securitisation trading book are exclusively high ranking and mezzanine tranches. This applies to long and short positions.

SECURITISATION

## 5.6 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 11) 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 77: 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**

Tables 78 and 79 show the bank's securitisation exposures and corresponding regulatory capital requirements for the banking book at 31st December 2017 and 31st December 2016. These exposures cover the same scope as that of tables 69, 72, 73 and 74.

# TABLE 78: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE BANKING BOOK BY APPROACH AND BY RISK WEIGHT BAND

|                              |            | Exposure at D  | efault (EAD) |                   |            | Capital requirements           Securitisation         Re-Securitisation           31.12.2017         31.12.2016         31.12.2017         31.12.2016           3         1         0         0           3         6         0         0 |            |                   |  |
|------------------------------|------------|----------------|--------------|-------------------|------------|---|------------|-------------------|--|
| (In EUR m)                   | Securiti   | Securitisation |              | Re-Securitisation |            | Securitisation  |            | Re-Securitisation |  |
| Risk Weight band             | 31.12.2017 | 31.12.2016     | 31.12.2017   | 31.12.2016        | 31.12.2017 | 31.12.2016  | 31.12.2017 | 31.12.2016        |  |
| 6 to 10%                     | 412        | 204            | 0            | 0                 | 3          | 1   | 0          | (                 |  |
| 12 to 18%                    | 310        | 674            | 0            | 0                 | 3          | 6   | 0          | (                 |  |
| 20 to 35%                    | 71         | 46             | 0            | 174               | 1          | 1   | 0          |                   |  |
| 40 to 75%                    | 0          | 28             | 34           | 42                | 0          | 1   | 1          | 1                 |  |
| 100%                         | 10         | 10             | 0            | 0                 | 1          | 1   | 0          | (                 |  |
| 150 to 250%                  | 0          | 0              | 0            | 0                 | 0          | 0   | 0          | (                 |  |
| > 250 and < 425%             | 0          | 0              | 0            | 0                 | 0          | 0   | 0          | (                 |  |
| >425% and < 850%             | 0          | 0              | 0            | 0                 | 0          | 0   | 0          | C                 |  |
| RBA method                   | 803        | 962            | 34           | 216               | 8          | 10  | 1          | 3                 |  |
| IAA method                   | 18,018     | 16,389         | 0            | 0                 | 117        | 110   | 0          | (                 |  |
| Supervisory Formula Approach | 69         | 171            | 0            | 0                 | 0          | 2   | 0          | (                 |  |
| 1250%/Capital deductions     | 20         | 21             | 0            | 12                | 20         | 21  | 0          | 11                |  |
| TOTAL IRB APPROACH           | 18,911     | 17,543         | 34           | 228               | 145        | 143   | 1          | 14                |  |
| 100% weighting               | 0          | 0              | 0            | 0                 | 0          | 0   | 0          | C                 |  |
| RBA approach                 | 0          | 0              | 0            | 0                 | 0          | 0   | 0          | (                 |  |
| Transparency method          | 38         | 44             | 0            | 0                 | 16         | 21  | 0          | (                 |  |
| TOTAL STANDARDISED APPROACH  | 38         | 44             | 0            | 0                 | 16         | 21  | 0          | (                 |  |
| TOTAL BANKING BOOK           | 18,949     | 17,587         | 34           | 228               | 162        | 164   | 1          | 14                |  |

At 31 December 2017, 99% of banking book securitisation exposures was valued under the IRB approach.

Under this method, 4% of exposures were weighted using the RBA method, 1% using the supervisory formula approach and 95% using the IAA method.

Under the standard approach, all securitisation positions are treated by a look-through approach.

Regulatory capital requirements in respect of banking book securitisation positions fell by EUR 15 million in 2017. This decrease predominantly reflected a decline in positions deducted from capital.

# TABLE 79: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE TRADING BOOK BY RISK WEIGHT BAND

| (In EUR m)                            |                    | 31.12.2017          |                      | 31.12.2016         |                     |                      |  |  |
|---------------------------------------|--------------------|---------------------|----------------------|--------------------|---------------------|----------------------|--|--|
| Risk Weight band                      | Net long positions | Net short positions | Capital requirements | Net long positions | Net short positions | Capital requirements |  |  |
| 6% - 10%                              | 225                | 62                  | 1,7                  | 209                | 47                  | 2                    |  |  |
| 12% - 18%                             | 89                 | 0                   | 1,0                  | 90                 | 0                   | 1                    |  |  |
| 20% - 35%                             | 112                | 0                   | 2,0                  | 40                 | 0                   | 1                    |  |  |
| 40% - 75%                             | 22                 | 0                   | 1,3                  | 15                 | 0                   | 1                    |  |  |
| 100%                                  | 13                 | 7                   | 1,7                  | 1722               | 4                   | 2                    |  |  |
| >100% <= 250%                         | 0                  | 0                   | 0,0                  | 0                  | 0                   | 0                    |  |  |
| >250% - < = 425%                      | 9                  | 0                   | 3,2                  | 0                  | 0                   | 0                    |  |  |
| >425% <= 850%                         | 0                  | 7                   | 4,2                  | 0                  | 0                   | 0                    |  |  |
| 1 250% / Déductions des fonds propres | 0                  | 0                   | 0,0                  | 0                  | 0                   | 0                    |  |  |
| EAD SUBJECT TO RISK WEIGHT            | 470                | 76                  | 15,1                 | 371                | 51                  | 6                    |  |  |
| Supervisory formula method            | 0                  | 0                   | 0,0                  | 0                  | 0                   | 0                    |  |  |
| Transparency method                   | 0                  | 0                   | 0,0                  | 0                  | 0                   | 0                    |  |  |
| IRB method                            | 0                  | 0                   | 0,0                  | 0                  | 0                   | 0                    |  |  |
| TOTAL, NET OF CAPITAL DEDUCTIONS      | 470                | 76                  | 15,1                 | 371                | 51                  | 6                    |  |  |
| 1250%/Positions deducted from capital | 1                  | 3                   | 4,0                  | 7                  | 8                   | 15                   |  |  |
| TOTAL                                 | 471                | 79                  | 19,1                 | 378                | 59                  | 21                   |  |  |

## TABLE 80: SECURITISATION EXPOSURES DEDUCTED FROM CAPITAL BY EXPOSURE CATEGORY

| (In EUR m)                   | 31.12.2017 | 31.12.2016 | 31.12.2017   | 31.12.2016 |  |
|------------------------------|------------|------------|--------------|------------|--|
| Underlying assets            | Banking l  | Book       | Trading Book |            |  |
| Residential mortgages        | 3          | 2          | 2            | 2          |  |
| Commercial mortgages         | 5          | 5          | 0            | 0          |  |
| Credit card receivables      | 0          | 0          | 0            | 0          |  |
| Leasing                      | 1          | 1          | 0            | 0          |  |
| Loans to corporates and SMEs | 0          | 0          | 2            | 3          |  |
| Consumer loans               | 12         | 12         | 0            | 0          |  |
| Trade receivables            | 0          | 0          | 0            | 0          |  |
| Other assets                 | 0          | 12         | 1            | 10         |  |
| Covered bonds                | 0          | 0          | 0            | 0          |  |
| Other liabilites             | 0          | 0          | 0            | 0          |  |
| TOTAL                        | 20         | 32         | 4            | 15         |  |

## TABLE 81: REGULATORY CAPITAL REQUIREMENTS FOR SECURITISATIONS HELD OR ACQUIRED IN THE TRADING BOOK

| _                               | 31.12.2017            |                     |                                      |                      | 31.12.2016            |                     |                                      |                      |
|---------------------------------|-----------------------|---------------------|--------------------------------------|----------------------|-----------------------|---------------------|--------------------------------------|----------------------|
| (In EUR m)                      | Net long<br>positions | Net short positions | Total risk-<br>weighted<br>positions | Capital requirements | Net long<br>positions | Net short positions | Total risk-<br>weighted<br>positions | Capital requirements |
| Securitisation                  | 470                   | 76                  | 189                                  | 15.1                 | 370                   | 51                  | 72                                   | 6                    |
| Re-securitisation               | 0                     | 0                   | 0                                    | 0.0                  | 2                     | 0                   | 1                                    | 0                    |
| Positions deducted from capital | 1                     | 3                   | 0                                    | 4.0                  | 6                     | 8                   | 0                                    | 15                   |
| TOTAL                           | 471                   | 79                  | 189                                  | 19.1                 | 378                   | 59                  | 73                                   | 21                   |

# TABLE 82: RE-SECURITISATION POSITIONS RETAINED OR PURCHASED (EAD)

|                   | 31.12.2017                       |                                 |                                  |                                 | 31.12.2016                       |                                 |                                  |                              |  |
|-------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|------------------------------|--|
|                   | Banking Book                     |                                 | Trading Book                     |                                 | Banking Book                     |                                 | Trading Book                     |                              |  |
| (In EUR m)        | Before<br>hedging/<br>insurances | After<br>hedging/<br>insurances | Before<br>hedging/<br>insurances | After<br>hedging/<br>insurances | Before<br>hedging/<br>insurances | After<br>hedging/<br>insurances | Before<br>hedging/<br>insurances | After hedging/<br>insurances |  |
| Re-securitisation | 34                               | 34                              | 0                                | 0                               | 228                              | 228                             | 2                                | 2                            |  |

There are no financial guarantors on these exposures.

# **MARKET RISKS**

# In brief

Market risk corresponds to the 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, and the price of securities (equity, 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

EUR 14.8 bn

(Amount at end-2016: EUR 16.9 bn)

Annual average VaR (1 day, 99%) - 2017

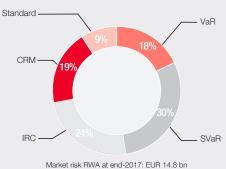
**EUR 25** m

(Annual average VaR 2016: EUR 21 m)

Share of RWA calculated by the internal model

91%

#### **DISTRIBUTION OF MARKET RISKS (RWA) BY RISK**



### MARKET RISKS (RWA IN EUR BN)



## 6.1 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-Risk (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 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, and make it possible to monitor the order of magnitude on exposures without netting effects;

 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.

## 6.2 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<sup>(1)</sup>, 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<sup>(2)</sup>.

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 MACC (Market Analysis and Certification Community), in conjunction with the Market Risk Department.

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

<sup>(1)</sup> Market transactions not related to client activities are confined in a dedicated subsidiary, Descartes Trading, subject to a specific risk appetite, which is limited.

<sup>(2)</sup> 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.

# 6.3 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<sup>(1)</sup> 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.

In 2017, daily losses were observed on 12 occasions <sup>(3)</sup>, and two backtesting breaches occurred:

- on 24th April 2017, against hypothetical P&L, stemming from normalisation movements and flight from quality in the wake of the results from the first round of the French presidential elections;
- on 31<sup>st</sup> August 2017, against actual P&L, due to the impact of the monthly Independent Price Verification (IPV), mainly on equity volatility.

<sup>(1) &</sup>quot;Actual P&L" by agreement hereinafter.

<sup>(2) &</sup>quot;Hypothetical P&L" by agreement hereinafter.

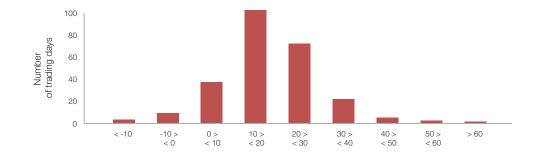
<sup>(3)</sup> Based on actual P&L.

### TABLE 83: REGULATORY TEN-DAY 99% VAR AND ONE-DAY 99% VAR

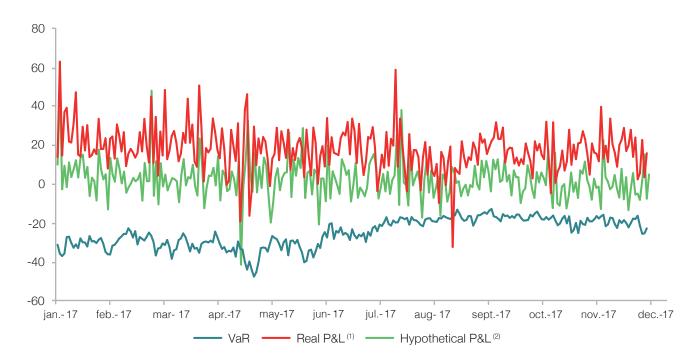
|               |                                   |                                 | _                                 |                                 |  |
|---------------|-----------------------------------|---------------------------------|-----------------------------------|---------------------------------|--|
|               | 31.12                             | .2017                           | 31.12.2016                        |                                 |  |
| (In EUR m)    | VaR (10 days, 99%) <sup>(1)</sup> | VaR (1 day, 99%) <sup>(1)</sup> | VaR (10 days, 99%) <sup>(1)</sup> | VaR (1 day, 99%) <sup>(1)</sup> |  |
| Period start  | 113                               | 36                              | 55                                | 17                              |  |
| Maximum value | 150                               | 48                              | 99                                | 31                              |  |
| Average value | 79                                | 25                              | 67                                | 21                              |  |
| Minimum value | 40                                | 13                              | 43                                | 13                              |  |
| Period end    | 67                                | 21                              | 97                                | 31                              |  |

<sup>(1)</sup> Over the scope for which capital requirements are assessed by internal model.

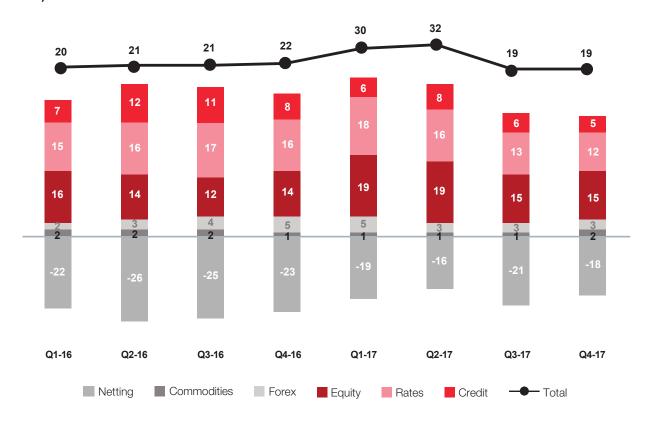
## BREAKDOWN OF THE DAILY P&L<sup>(1)</sup> OF MARKET ACTIVITIES (2017, IN EUR M)



## TRADING VAR (ONE-DAY, 99%), DAILY ACTUAL P&L<sup>(1)</sup> AND DAILY HYPOTHETICAL P&L<sup>(2)</sup> OF THE TRADING PORTFOLIO (2017, IN EUR M)



# BREAKDOWN BY ISK FACTOR OF TRADING VAR (ONE-DAY, 99%) – CHANGES IN QUARTERLY AVERAGE OVER THE 2016-2017 PERIOD (IN EUR M)



<sup>(1)</sup> Daily profit or loss used for the VaR backtesting against actual P&L, as defined in the "99% Value-at-Risk (VaR)" section of the Group consolidated financial statements on page 170.

<sup>(2)</sup> Daily profit or loss used for the VaR backtesting against hypothetical P&L, as defined in the "99% Value-at-Risk (VaR)" section of the Group consolidated financial statements on page 170.

In 2017, VaR (1 day, 99%) was riskier on average (EUR 25 million compared to EUR 21 million in 2016) with two major trends:

- an increase over the first part of the year, due to the inclusion at end-2016 of more volatile scenarios within the VaR computation;
- a decrease in early summer, due to (i) an improvement in the calculation method, aiming to more accurately reflect the characteristics of the Cross Currency basis, and (ii) interest rate and FX positions in Europe moving towards a more defensive profile.

## Stressed VaR (SVaR)

Audited I 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, 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 2017, 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 decreased in 2017 compared to 2016, mainly due to changes in interest rate positions in Europe.

#### TABLE 84: REGULATORY TEN-DAY 99% SVAR AND ONE-DAY 99% SVAR (IN EUR M)

|               | 31.12.20                                      | <u></u><br>117                              | 31.12.2016                                    |   |  |
|---------------|---|---|---|---|--|
| (In EUR m)    | Stressed VaR<br>(10 days, 99%) <sup>(1)</sup> | Stressed VaR<br>(1 day, 99%) <sup>(1)</sup> | Stressed VaR<br>(10 days, 99%) <sup>(1)</sup> | Stressed VaR<br>(1 day, 99%) <sup>(1)</sup> |  |
| Period start  | 119   | 38  | 155   | 49  |  |
| Maximum value | 198   | 62  | 216   | 68  |  |
| Average value | 85  | 27  | 142   | 45  |  |
| Minimum value | 50  | 16  | 89  | 28  |  |
| Period end    | 67  | 21  | 164   | 52  |  |

<sup>(1)</sup> Over the scope for which capital requirements are assessed by internal model.

## **6.4** 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.

This stress test risk assessment is applied throughout all the Bank's market activities. It is based on a set of 18 scenarios (3 historical and 15 hypothetical).

Together with the VaR model, this stress test risk assessment methodology is one of the main pillars of the risk management framework. The underlying 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;
- stress test limits are established for Societe Generale's activity as a whole, and then for the Group's various business lines.

The various stress test scenarios 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. At the end of 2016, the time horizons used for shock calibration were reviewed: for some parameters (mainly equity dividends, equity repos, implicit correlations on equity markets), the time horizons used previously were deemed inadequate in view of developments in market conditions, which led us to adjust the shocks used in the scenarios at the beginning of 2017. Furthermore, the foreign exchange shocks were reviewed in various scenarios.

#### **HISTORICAL STRESS TESTS**

This method consists of an analysis of the major economic crises that have affected the financial markets since 1995 (date from which the financial markets have become global and

subject to increased regulatory requirements): 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.

#### **HYPOTHETICAL STRESS TESTS**

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;
- two 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);
- major hedge fund crisis: risk of dislocation of the international financial system stemming from the near-bankruptcy of a major hedge fund, triggered by a crisis in the bond markets (as seen with the near-bankruptcy of Long Term Capital Management in October 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).

## Average stress tests in 2017<sup>(1)</sup>

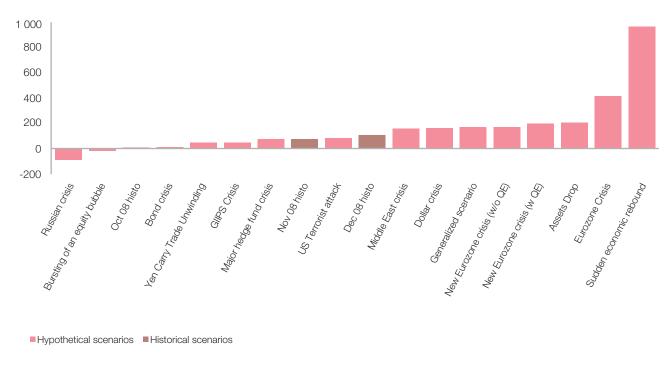
2017 was characterised by:

- a more favourable environment for risky assets (rise in equities, and historically low equity volatility and credit spreads);
- solid economic fundamentals;
- cautious monetary-policy normalisation by the FED and the ECB;

 temporary geopolitical risks (French elections, Catalonia, Korea, etc.).

Against this backdrop, the Group-level global stress test remained low throughout the year (9% lower on average than in 2016) due to a generally defensive profile; there was a temporary rise in the second quarter, stemming from client transactions on FX options and equities.

#### SIMULATION OF IMPACT OF STRESS SCENARIOS (2017 AVERAGES IN EUR M)



(1) Excluding legacy assets, which are subject to specific risk monitoring.

## **6.5** 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<sup>(1)</sup>. 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<sup>(2)</sup>, 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.

<sup>(1)</sup> The same internal model is used for all portfolios for wich an IRC calculation is required. The same is true for the portfolios on wich a CRM calculation is performed.

<sup>(2)</sup> 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.

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.

### TABLE 85: IRC (99.9%) AND CRM (99.9%)

| (In EUR m)                                | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Incremental Risk Charge (99.9%)           |            |            |
| Period start                              | 183        | 354        |
| Maximum value                             | 321        | 396        |
| Average value                             | 256        | 286        |
| Minimum value                             | 175        | 184        |
| Period end                                | 282        | 187        |
| Comprehensive Risk capital charge (99.9%) |            |            |
| Period start                              | 213        | 163        |
| Maximum value                             | 226        | 263        |
| Average value                             | 177        | 194        |
| Minimum value                             | 164        | 142        |
| Period end                                | 225        | 214        |

## **6.6** MARKET RISK CAPITAL REQUIREMENTS AND RISK-WEIGHTED ASSETS

### TABLE 86: MARKET RISK CAPITAL REQUIREMENTS AND RWA BY RISK FACTOR (IN EUR M)

|  | Risk-weighted assets |            |         | Capital requirement |            |        |
|--|----------------------|------------|---------|---------------------|------------|--------|
| (In EUR m)   | 31.12.2017           | 31.12.2016 | Change  | 31.12.2017          | 31.12.2016 | Change |
| VaR  | 2,606                | 4,233      | (1,627) | 208                 | 339        | (130)  |
| Stressed VaR   | 4,466                | 6,389      | (1,923) | 357                 | 511        | (154)  |
| Incremental Risk Change (IRC)  | 3,527                | 2,343      | 1,184   | 282                 | 187        | 95     |
| Correlation portfolio (CRM)  | 2,817                | 2,669      | 148     | 225                 | 214        | 11     |
| TOTAL MARKET RISKS ASSESSED BY INTERNAL MODEL                              | 13,416               | 15,635     | (2,219) | 1,073               | 1,251      | (178)  |
| Specific risk related to securitisation positions in the trading portfolio | 189                  | 73         | 116     | 15                  | 6          | 9      |
| Risk assessed for currency positions                                       | 640                  | 600        | 40      | 51                  | 48         | 3      |
| Risks assessed for interest rates (excl. securitisation)                   | 368                  | 246        | 122     | 29                  | 20         | 10     |
| Risk assessed for ownership positions                                      | 108                  | 225        | (117)   | 9                   | 18         | (9)    |
| Risk assessed for commodities  | 79                   | 94         | (15)    | 6                   | 8          | (1)    |
| TOTAL MARKET RISKS ASSESSED BY STANDARD APPROACH                           | 1,384                | 1,238      | 146     | 111                 | 99         | 12     |
| TOTAL  | 14,800               | 16,873     | 2,073   | 1,184               | 1,350      | (166)  |

### TABLE 87: CAPITAL REQUIREMENTS AND RWA BY TYPE OF MARKET RISK (IN EUR M)

|   | Risk-weigh | Capital requirement |            |            |
|---|------------|---------------------|------------|------------|
| (In EUR m)                                  | 31.12.2017 | 31.12.2016          | 31.12.2017 | 31.12.2016 |
| Risk assessed for currency positions        | 981        | 1,206               | 78         | 96         |
| Risk assessed for credit (excl. deductions) | 7,681      | 6,893               | 614        | 551        |
| Risk assessed for commodities               | 225        | 252                 | 18         | 20         |
| Risk assessed for ownership positions       | 3,099      | 3,805               | 248        | 304        |
| Risk assessed for interest rates            | 2,814      | 4,717               | 225        | 377        |
| TOTAL                                       | 14,800     | 16,873              | 1,184      | 1,350      |

Over 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, SG Express Bank, BRD, Societe Generale Banka Srbija. The decrease in capital requirements related to market risk, concentrated on the internal model perimeter, is mainly due to a reduction in SVaR and VaR, stemming from a change in interest rate and foreign exchange (specifically for VaR) positions in Europe, partially offset by an increase in IRC following the expiry of credit protection/hedging on various indices at the end of year.

## **6.7** MARKET RISK RWA AND CAPITAL REQUIREMENTS – ADDITIONAL QUANTITATIVE INFORMATIONS

### TABLE 88: MARKET RISK UNDER STANDARDISED APPROACH (MR1)

|   | 31.12.2017           | 31.12.2016           | 31.12.2017          | 31.12.2016          |
|---|----------------------|----------------------|---------------------|---------------------|
| (In EUR m)                                | Risk weighted assets | Risk weighted assets | Capital requirement | Capital requirement |
| Products                                  | 1,195                | 1,165                | 96                  | 93                  |
| Interest rate risk (general and specific) | 368                  | 246                  | 29                  | 20                  |
| Equity risk (general and specific)        | 108                  | 225                  | 9                   | 18                  |
| Foreign exchange risk                     | 640                  | 600                  | 51                  | 48                  |
| Commodity risk                            | 79                   | 94                   | 6                   | 8                   |
| Options                                   | 189                  | 73                   | 15                  | 6                   |
| Simplified approach                       | 0                    | 0                    | 0                   | 0                   |
| Delta-plus method                         | 0                    | 0                    | 0                   | 0                   |
| Scenario approach                         | 0                    | 0                    | 0                   | 0                   |
| Securitisation (specific risk)            | 189                  | 73                   | 15                  | 6                   |
| TOTAL                                     | 1,384                | 1,238                | 111                 | 99                  |

Outright products refer to positions in products that are not optional.

### TABLE 89: MARKET RISK UNDER INTERNAL MODELS APPROACH (MR2-A)

|       |   |                      | -                    |                     |                        |
|-------|---|----------------------|----------------------|---------------------|------------------------|
|       |   | 31.12.2017           | 31.12.2016           | 31.12.2017          | 31.12.2016             |
| (In E | JR m)   | Risk weighted assets | Risk weighted assets | Capital requirement | Capital<br>requirement |
| 1     | VaR (higher of values a and b)  | 2,606                | 4,233                | 208                 | 339                    |
| (a)   | Previous day's VaR (Article 365(1) (VaRt-1))  | 843                  |                      | 67                  | 193                    |
| (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) | 0                    |                      | 208                 | 339                    |
| 2     | SVaR (higher of values a and b)   | 4,466                | 6,389                | 357                 | 511                    |
| (a)   | Latest SVaR (Article 365(2) (sVaRt-1))  | 2,330                |                      | 186                 | 164                    |
| (b)   | Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)                             | 4,466                |                      | 357                 | 511                    |
| 3     | Incremental risk charge -IRC (higher of values a and b)   | 3,527                | 2,343                | 282                 | 187                    |
| (a)   | Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with Section 3 articles 370/371)                            | 3,029                |                      | 282                 | 142                    |
| (b)   | Average of the IRC number over the preceding 12 weeks   | 3,527                |                      | 242                 | 187                    |
| 4     | Comprehensive Risk Measure – CRM (higher of values a, b and c)  | 2,817                | 2,669                | 225                 | 214                    |
| (a)   | Most recent risk number for the correlation trading portfolio (article 377)   | 2,817                |                      | 225                 | 142                    |
| (b)   | Average of the risk number for the correlation trading portfolio over the preceding 12-weeks  | 2,221                |                      | 178                 | 214                    |
| (C)   | 8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4))                                      | 2,110                |                      | 169                 | 162                    |
| 5     | TOTAL   | 13,416               | 15,635               | 1,073               | 1,251                  |

### TABLE 90: INTERNAL MODEL VALUES FOR TRADING PORTFOLIOS (MR3)

| (In EUR m)                                | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| VaR (10 jours, 99%) <sup>1</sup>          |            |            |
| Period start                              | 113        | 55         |
| Maximum value                             | 150        | 99         |
| Average value                             | 79         | 67         |
| Minimum value                             | 40         | 43         |
| Period end                                | 67         | 97         |
| Stressed VaR (10 days, 99%) <sup>1</sup>  |            |            |
| Period start                              | 119        | 155        |
| Maximum value                             | 198        | 216        |
| Average value                             | 85         | 142        |
| Minimum value                             | 50         | 89         |
| Period end                                | 67         | 164        |
| Incremental Risk Charge (99.9%)           |            |            |
| Period start                              | 183        | 354        |
| Maximum value                             | 321        | 396        |
| Average value                             | 256        | 286        |
| Minimum value                             | 175        | 184        |
| Period end                                | 282        | 187        |
| Comprehensive Risk capital charge (99.9%) |            |            |
| Period start                              | 213        | 163        |
| Maximum value                             | 226        | 263        |
| Average value                             | 177        | 194        |
| Minimum value                             | 164        | 142        |
| Period end                                | 225        | 214        |
| Floor (standardised measurement method)   | 169        | 203        |

<sup>(1)</sup> On the perimeter for which the capital requirements are assessed by internal model.

### TABLE 91: 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 (31.12.2016) | 4,233  | 6,389   | 2,343 | 2,669 | 0     | 15,635    | 1,251                      |
| Regulatory adjustment                                | 1,822  | 4,340   | 574   | 138   | 0     | 6,873     | 550                        |
| RWA at end of day previous quarter                   | 2,412) | 2,049   | 1,770 | 2,531 | 0     | 8,762     | 701                        |
| Movement in risk levels                              | (1,625 | (2,048) | 1,183 | 147   | 0     | (2,341)   | (187)                      |
| Model updates/changes                                | 0      | 130     | 0     | 0     | 0     | 130       | 10                         |
| Methodology and policy                               | 0      | 0       | 0     | 0     | 0     | 0         | 0                          |
| Acquisitions and disposals                           | 0      | 0       | 0     | 0     | 0     | 0         | 0                          |
| Foreign exchange movements                           | (3)    | (4)     | 0     | 0     | 0     | (7)       | (1)                        |
| Other  | 0      | 0       | 0     | 0     | 0     | 0         | 0                          |
| RWA at end of day quarter                            | 843    | 2,330   | 3,029 | 2,817 | 0     | 9,020     | 722                        |
| Regulatory adjustment                                | 1,762  | 2,136   | 498   | 0     | 0     | 4,396     | 352                        |
| RWA at end of reporting period (31.12.2017)          | 2,606  | 4,466   | 3,527 | 2,817 | 0     | 13,416    | 1,073                      |

### 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.

## **OPERATIONAL RISKS**

## In brief

Operational risks correspond to the risk of losses resulting from inadequacies or failures in processes, personnel or information systems, or from external events.

Operational risks RWA at end 2017.

EUR 49.0 bn

(Amount at end-2016: EUR 44.4 bn)

Share of RWA calculated by the internal model at end 2017.

(93% et end-2016)

### **DISTRIBUTION OF OPERATIONAL RISKS LOSSES BY AMOUNT AND BY NUMBER**



### **DISTRIBUTION OF OPERATIONAL RISK RWA BY PILIAR**

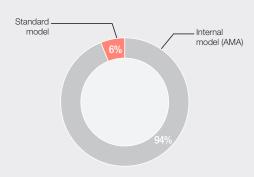


Operational risk RWA at end-2017: EUR 49 bn

### **OPERATIONAL RISKS (RWA IN EUR BN)**



### **DISTRIBUTION OF OPERATIONAL RISKS (RWA) BY METHOD**



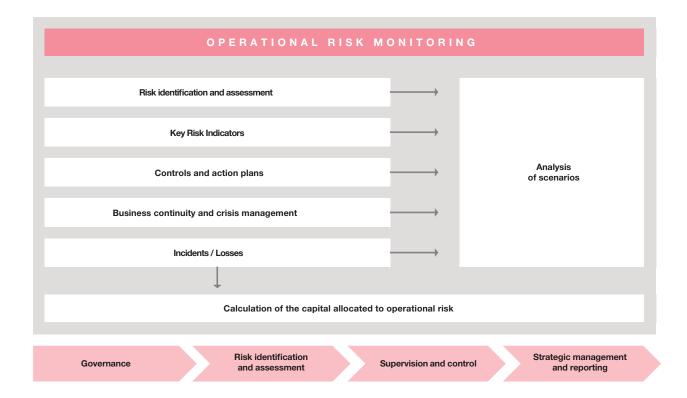
7.1

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.

In 2007, the French Prudential Supervisory and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR) conducted an in-depth review of the system in place at Societe Generale. As a result, it authorised the Group to use the most advanced measurement approach, as defined by the Basel 2 Accord (*i.e.* the AMA: Advanced Measurement Approach) to calculate the Group's capital requirements for operational risks, starting from 1st January 2008. This authorisation covers more than 90% of the Societe Generale Group's total net banking income.



### 7.2 OPERATIONAL RISK MONITORING PROCESS

Procedures and tools have been rolled out within the Group in order to identify, evaluate and manage operational risk:

- data collection and analysis on internal losses and losses incurred by banks following the materialisation of operational risks:
- Risk And Control Self-Assessment, which establishes an accurate map of the levels of intrinsic and residual risk, having taken into account the risk prevention and control systems;
- supervision of new products;
- management of outsourced services;
- steering by Key Risk Indicators (KRI), which provide upstream alerts as to the risks of operating losses;
- establishment of scenario analyses, which consist in estimating infrequent but severe potential losses to which the Group could be exposed;
- monitoring of major action plans regarding operational risks;
- crisis management and business continuity planning.

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 (including their existence and effectiveness in detecting and preventing major risks and/or their capacity to reduce their financial impact);
- 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;
- correcting any deficiencies in risk prevention and mitigation measures and implementing corrective action plans;
- 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. Accordingly, regular KRI monitoring assists managers of the business entities in their assessment of the Group's operational risk exposure, thereby providing them with:

• a quantitative, verifiable risk measurement;

 a regular assessment of the improvements or deteriorations in the risk profile and the control and prevention environment requiring particular attention or an action plan.

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 serves two purposes: informing the Group of potential significant areas of risk and contributing to the calculation of the capital required to cover operational risks.

For the calculation of capital requirements, the Group uses scenario analyses to:

- measure its exposure to potential losses arising from low frequency/very high severity events;
- provide an expert's opinion of loss distribution for event categories for which the internal loss data history is insufficient.

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.). Analyses are undertaken for two types of scenario:

 major Group stress scenarios, involving very severe events that cut across businesses and departments, having an external cause in most cases and potentially requiring a business continuity plan (BCP);

business scenarios that do not, strictly speaking, fall into the category of business continuity, but are used to measure the unexpected losses to which the businesses may be exposed. Specific actions are performed in order to prevent the portfolio from being diluted over too many scenarios and to maintain the system's focus on risks that could severely impact the Group.

Governance is established in order, in particular, to:

- allow the approval of the annual scenario 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 customer products to a **New Product Committee**, jointly coordinated by the Risk Division and the relevant businesses. The aim is to ensure that, prior to the launch of a new product:

- all associated risks have been identified, understood and correctly addressed;
- compliance issues have been assessed with respect to the laws and regulations in force, the codes of good professional conduct and the Group's reputational risk;

 all support functions have been involved and any and all reservations expressed have been resolved.

This Committee is underpinned by a very broad definition of "new product or service", which ranges from the creation of a new product to the adaptation of an existing product to a new environment or new customer type.

Throughout the whole Group, 548 New Product Committee meetings were held in 2017.

### **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 reputational, legal, compliance, fraud, information security and data protection risks. Other types of risk may be analysed, if necessary.

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 RISQ/OPE, which ensures consistency at Group level.

Across the Group, 297 services were outsourced in 2017.

### **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. It consists primarily in identifying risks to which the Company is exposed as well as their possible impacts, establishing a response capacity that can effectively withstand various crisis scenarios (including extreme shocks), and maintaining these systems to ensure they remain effective.

### 7.3 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, property destruction and pandemic risks.

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 3.9 billion at the end of 2017, representing EUR 48.7 billion in risk-weighted assets. This assessment integrates capital requirements on both the AMA and Standard scopes.

### 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 7% decrease in total capital requirements for operational risks.

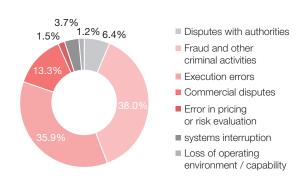
### **Quantitative data**

The following charts break down operating losses by risk category for the 2013-2017 period.

### OPERATIONAL RISK LOSSES: BREAKDOWN BY SOCIETE GENERALE RISK EVENT TYPE – AMOUNTS

# 1.5% 1.1% 0.2% Disputes with authorities Fraud and other criminal activities Execution errors Commercial disputes Error in pricing or risk evaluation systems interruption Loss of operating environment / capability

### 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 97% of the Group's total operating losses:

- commercial disputes represented 46% of total Group operating losses. The amount of losses in this category increased compared with last year due to a settlement agreement with the Libyan Investment Authority;
- disputes with authorities, the second largest category, represented 26% 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 6% of the total number of losses;
- execution errors represented 13% of total operating losses, thereby constituting the third leading cause of loss for the

- Group. Thanks to the action plans implemented, the amount of losses for this category is on a downwards trend;
- fraud and other criminal activities represented 13% of amount of operating losses over the period. They are mainly due to electronic payment fraud and the production of false documents relating to guarantees for financing under collection.

The other categories of Group operational risk (rogue trading, IT system interruptions, pricing or risk assessment errors and operating resource losses) were still relatively insignificant, representing barely 3% of the Group's losses on average over the 2013 to 2017 period.

### 7.4 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 against staff or managers as a result of their professional activity 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. It provides cover for the various expenses and business interruption losses that the Group could incur following a cyber attack, as well as any financial consequences arising from its civil liability in such cases.

### 7.5 CAPITAL REQUIREMENTS

Societe Generale's capital requirements related to operational risk are calculated mainly under the internal model (94% in 2017 *versus* 93% in 2016).

The following table presents the Group's risk-weighted assets and the corresponding capital requirements at 31st December 2017.

The EUR 4.6 billion increase in weighted assets is mainly due to the evolution of potential incidents on the AMA scope.

### TABLE 92: RISK-WEIGHTED ASSETS AND CAPITAL REQUIREMENTS FOR OPERATIONAL RISK

|   | 31.12.2017                               |  |              |                      |  | 31.12.20   | D16          |                      |
|---|--|--|--------------|----------------------|--|--|--------------|----------------------|
| (In EUR m)  | RWA<br>under<br>Standardised<br>approach | RWA<br>under<br>Advanced<br>Measurement<br>Approach<br>(AMA) | Total<br>RWA | Capital requirements | RWA<br>under<br>Standardised<br>approach | RWA<br>under<br>Advanced<br>Measurement<br>Approach<br>(AMA) | Total<br>RWA | Capital requirements |
| Global Banking and Investor Solutions               | 289                                      | 31,702   | 31,991       | 2,559                | 401                                      | 28,889   | 29,290       | 2,343                |
| Corporate Centre                                    | 463                                      | 3,172  | 3,635        | 291                  | 418                                      | 2,946  | 3,364        | 269                  |
| International Retail Banking and Financial Services | 2,226                                    | 5,501  | 7,727        | 618                  | 2,205                                    | 4,773  | 6,978        | 558                  |
| French Retail Banking                               | 42                                       | 5,600  | 5,642        | 452                  | 47                                       | 4,706  | 4,753        | 380                  |
| TOTAL   | 3,020                                    | 45,975   | 48,995       | 3,920                | 3,071                                    | 41,314   | 44,385       | 3,550                |

## 8

## 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-2016.

(in % of regulatory capital)

< 0.6%

(1.5% at end-2016)

Group net interest margin sensitivity over one year, in the event of parallel shift in the yield curves of +200bp in 2017 (in % of the net banking income)

**2**%

(< 1% in 2016)

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 centre 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 extent possible within the

consolidated entities. Wherever possible, commercial and corporate centre transactions 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 (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 currency fluctuations.

## 8.1 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 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 for structural risks;
- defining the steering indicators and overall stress test scenarios for the different types of structural risk and setting the main limits for the entities;
- 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, as well as modelling and management methods;
- defining the models used by the Group's entities with regard to structural risks;
- inventorying, 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 provides an opinion on the methodological principles, parameters and backtests of ALM models. It analyses proposals from the ALM Department regarding the risk indicators, stress test scenarios and structural risk frameworks. It also conducts second-level controls of risk limits. The Risk Department organises and chairs the Model Validation Committee.

## The entities are responsible for structural risk management

In this respect, the entities apply the standards defined at the Group level, develop their models, measure their risk exposure and implement the required hedges.

Each entity has its own structural risk manager, who reports to the entity's Finance Department 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. French and International Retail Banking entities generally have an *ad hoc* ALM Committee responsible for applying the validated models, managing exposures to interest rate and exchange rate risks, and implementing the hedging programmes in compliance with the principles set out by the Group and the limits validated by the Finance Committee and the pillars' ALM Committees.

### **8.2** STRUCTURAL INTEREST RATE RISK

Structural interest rate risk is measured within the scope of structural activities, specifically commercial transactions, the associated hedging transactions and corporate centre transactions for each of the Group's consolidated 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 aim is to ensure the risk is managed by reducing each Group entity's exposure to the greatest extent possible.

To this end, each entity and the Group as a whole are subject to sensitivity limits 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 correspond to the net interest margin sensitivity). 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 (NPV) sensitivity: this is used to set limits for the entities 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: this takes into account the sensitivity generated by future commercial productions over a three-year rolling horizon, and 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, amortisation conventions and models based on customers' historic behaviour patterns (particularly for sight deposits, regulated savings accounts, loan prepayments) 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 in the net present value of the fixed-rate positions for a 1% instantaneous parallel increase in the yield curve.

In addition to this analysis, the Group analyses the sensitivity to different yield curve configurations with a floor at 0% of its fixed-rate position.

The measurement of the net interest margin sensitivity to different yield curve configurations with a floor at 0% over a three-year rolling horizon is also used by the Group to quantify the structural interest rate risk of significant entities.

Throughout 2017, the Group maintained overall sensitivity of the net present value to interest rate risk below 0.6% of Group regulatory capital and below its EUR 1 billion limit.

The following observations can be made with regard to the businesses' structural interest rate risk:

- within French Retail Banking, the outstanding amounts of customer deposits are generally considered to be fixed-rate. Macro-hedging is set up mainly using interest rate swaps, in order to maintain the networks' net present value and income margin sensitivities to interest rate risk (on the basis of the scenarios adopted) within the limits set. At end-December 2017, the sensitivity of French Retail Banking's net present value to an instantaneous 1% parallel increase in the yield curve, based on its essentially euro-denominated assets and liabilities, was EUR -171 million;
- commercial transactions with large corporates are generally micro-hedged and therefore present no interest rate risk;
- commercial transactions with customers of the Specialised Financial Services subsidiaries are generally macro-hedged and therefore present 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, due to the difficulties these entities may face in optimally hedging interest rate risk; nonetheless, these positions, managed within limits, remain marginal at Group level;
- corporate centre transactions are subject to hedging.

Sensitivity to interest rate variations within the Group's main entities, accounting for 86% of Group and corporate centre outstanding loans as at 31st December 2017, represented EUR -275 million (for a 1% parallel and instantaneous rise in the yield curve).

### TABLE 93: 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 (31.12.2017) | 4        | (265)     | (13)      | (275) |
| Amount of sensitivity (31.12.2016) | 15       | 9         | 87        | 111   |

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.

At 31st December 2017, the Group's net interest margin sensitivity for 2018 was as follows:

### TABLE 94: SENSITIVITY OF THE GROUP'S INTEREST MARGIN

| (In EUR m)                                    | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Parallel increase in interest rates of 200 bp | 490        | 236        |
| Parallel decrease in interest rates of 200 bp | (167)      | (207)      |
| Parallel increase in interest rates of 100 bp | 234        | 115        |
| Parallel decrease in interest rates of 100 bp | (112)      | (64)       |
| Flattening                                    | 210        | 161        |
| Steepening                                    | 143        | (54)       |

Calculations are based on aggregated estimates at 31st December for a scope of Group consolidated entities representing 8/10ths of the Group's net interest margin.

The dynamic vision of the balance sheet varies according to the amortisation of outstanding transactions and transaction renewals based on outstanding amounts budgeted for 2018. The flattening assumptions used for the simulation allow for a 200 bp increase in short-term rates and a -58 bp decrease in long-term rates. The steepening scenario used allows for a -162 bp decrease in short-term rates and an 88 bp increase in long term rates.

The Group's net interest margin sensitivity over the full year of 2018 is low. In the event of a parallel shift in the yield curves of +200 bp, the sensitivity is positive and represents 2% of the net banking income.

The net interest margin sensitivity mainly stems from the impact on:

 customer deposits: generally speaking, little to no interest is paid on deposits, and pricing is only partly impacted by fluctuations in interest rates, the margin on deposits being mainly derived from reinvestment rates;  new loan production, for which pricing is not adjusted as quickly as market rates.

The margin sensitivity on outstanding customer transactions results from the renewal of amounts due on reinvested deposits and from 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 the fall in margins on new loan production (loan rates do not adjust as quickly as market rates) and 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 fall in margin is partially offset by the rise in margins on new loan production (customer loan rates do not fall as quickly as market rates) and by a reduction in funding costs.

### 8.3 AUDITED I STRUCTURAL EXCHANGE RATE RISK

Structural exchange rate risk is mainly caused by:

- foreign currency-denominated capital contributions and equity investments financed through the purchase of foreign currencies:
- retained earnings in foreign subsidiaries.

### **Objective of the Group**

■ The Group's policy consists in calibrating the hedging of its net investments in foreign entities to reduce, as far as possible, the sensitivity of its Common Equity Tier 1 ratio to fluctuations in exchange rates. To this end, it enters into hedging transactions to maintain a currency exposure reducing such sensitivity within limits validated by the Finance Committee.

## Measurement and monitoring of structural foreign exchange rate risks

The Group quantifies its exposure to structural foreign exchange rate risks by analysing all assets and liabilities denominated in foreign currencies, arising from commercial transactions and the corporate centre.

The Group monitors structural exchange rate positions in the different currencies and manages the sensitivity of the Common Equity Tier 1 ratio to exchange rate fluctuations.

Table 35 presents the impact on the Group Common Equity Tier 1 ratio of a 10% currency depreciation or appreciation for 31st December 2017.

### TABLE 95: 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 Impact on ratio of a 10% currency depreciation ratio of a 1 |            |            | the Common Equity Tier 1<br>10% currency appreciation |  |
|----------|--|------------|------------|---|--|
| Currency | 31.12.2017   | 31.12.2016 | 31.12.2017 | 31.12.2016  |  |
| USD      | 1  | 2          | (1)        | (2)   |  |
| GBP      | 0  | (1)        | 0          | 1   |  |
| JPY      | 0  | 0          | 0          | 0   |  |
| KRW      | 0  | 0          | 0          | 0   |  |
| RON      | 0  | 0          | 0          | 0   |  |
| RUB      | 0  | 0          | 0          | 0   |  |
| CHF      | (1)  | 1          | 1          | (1)   |  |
| CZK      | (1)  | (1)        | 1          | 1   |  |
| Other    | (2)  | (2)        | 2          | 2   |  |

In 2017, structural positions monitoring reduced the Common Equity Tier 1 ratio sensitivity to currency fluctuations (sensitivity of the Common Equity Tier 1 ratio is managed within limits per currency set according to the Group's risk appetite in these currencies).

# LIQUIDITY RISK

## In brief

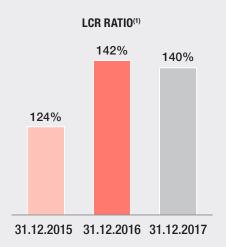
Liquidity risk corresponds to the risk of the Group not being able to meet its cash or collateral requirements as they arise and at a reasonable cost.

This section details the monitoring of liquidity and the management of this risk.

Liquidity reserve at end-2017

EUR 174 bn

(Amount at end- 2016: EUR 168 bn)



<sup>(1)</sup> Disclosed ratios are fully loaded, calculated according to CRR/CRD4 rules published on 26th June 2013, including the Danish compromise for Insurance.

### 9.1 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;
- 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.

LIQUIDITY RISK

### 9.2 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:

- 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 systemic, specific or combined scenarios, are 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.

- 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 pillars' 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.

Societe Generale has undertaken a specific review of its liquidity risks and believes that it is able to meet its upcoming maturities.

### 9.3 REFINANCING STRATEGY

The Group's financing strategy is based on the following principles:

- the Group's stable funding resources (including shareholders' equity, 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 portfolio of available-for-sale or held-to-maturity securities);
- short-term market resources finance the Group's short-term assets, which are predominantly carried by Global Banking and Investor Solutions' Global Markets pillar;
- the Group maintains a liquidity reserve to cover outflows in situations of stress.

### **Market financing**

The Group's market resources totalled EUR 219 billion at 31st December 2017. Of this total, EUR 87 billion have a remaining maturity of less than one year, of which EUR 27 billion correspond to debt securities issued with an initial medium/long-term maturity (more than one year) and EUR 60 billion to short-term market resources.

Group short-term unsecured market resources consist of unsecured notes issued under the Group's short-term programmes (mainly Certificates of Deposit, promissory notes and commercial paper), and deposits from banks and financial customers. The majority of the short-term market resources are issued by the Group's Central Treasury to international institutional investors under its short-term programme. The Group's Central Treasury adheres to diversification thresholds on its 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 unsecured market resources totalled EUR 60 billion at 31st December 2017, against EUR 58 billion at 31st December 2016, and remained stable overall in 2017, after a significant reduction during 2014 (EUR -38 billion) according to the Group's strategy to reduce the share of short-term wholesale funding 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 159 billion at 31st December 2017, against

EUR 157 billion at 31st December 2016. 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, since the vote of the Sapin 2 law creating this new type of debt instrument in December 2016
- covered bonds issued by SG SFH vehicles; and SG SCF 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);
- 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 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.

### 9.4 DISCLOSURE ON ASSET ENCUMBRANCE

### **Encumbered assets**

Scope

The scope is the consolidated Group in the prudential sense.

Définition

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.

Calculation of median values

The "Total" rows in the templates are the medians of the sums and not the sum of the medians.

Total Group encumbrance amounts to 30% in 2017, measured according to EBA definition<sup>(1)</sup>. Securities encumbrance is 72%, while loan encumbrance is 12%.

The majority of the Group encumbered assets (around 83%) 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.

Encumbrance on assets in USD stems mainly from debt securities and equities.

The Group loan encumbrance rate remains limited overall. 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<sup>(2)</sup> 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, secured funding (SG SFH, SG SCF and CRH), or securitizations. More recently, the emergence of long-term refinancing mechanisms implemented by the ECB (i.e. LTRO and then TLTRO) led SGPM to increase its volume of encumbered loans. at subsidiary level, the loan encumbrance rate is limited to less than 10%<sup>(2)</sup> 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, intra-group encumbrance (i.e. the share of loans encumbered at entity level but not necessarily encumbered at Group level) represents 5% of the total amount of the Group's encumbered loan collateral. This stems mainly from the housing loans portfolio brought by Crédit du Nord to SFH (which increased significantly in 2017), and since June 2017 by Boursorama, and to a lesser extent by BFCOI (Réunion).

Regarding major long-term secured funding mechanisms, over-collateralisation on covered bonds vehicles was 122% on SG SCF and 114% on SG SFH as of 31 December 2017.

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 contracs...) for close to EUR200bn.

The main sources of encumbrance are repo operations and debt securities issued.

<sup>(1)</sup> Median values on quarterly data.

<sup>(2)</sup> According to a methodology consisting of first encumbering the least liquid eligible assets (encumbered loans/total loans).

### **Contractual aspects**

- Secured liabilities can be securities or loans. The encumbrance of receivables generated by secured liabilities is formalised by a loan agreement and a guarantee agreement governed, as the case may be, by the provisions of Articles L. 313-23 and following of the Monetary and Financial Code (the so-called "Dailly" Act) or by Articles L. 211-38 and following of said Code (transposition of the Financial Collateral Directive into French law).
- The title to the encumbered receivables is transferred by the borrower of the secured liability as a guarantee to the lender, the beneficiary of the guarantee. The beneficiary of the guarantee is legally the owner of the receivables and has an obligation to return the receivables to the borrower upon the redemption of the debt (formalised by a loan agreement). The underlying debtors of the transferred receivables are not informed of the transfer as long as the borrower of the secured liability continues to pay in a timely manner the amounts due on the loan(s) and fulfils the obligations under the loan agreement and the guarantee agreement.
- The borrower undertakes to transfer additional receivables that comply with eligibility criteria on a periodic basis as is necessary to maintain a certain minimum level of collateralisation. The eligibility criteria are defined under the guarantee agreement. The transfers are formalised by the delivery of a transfer form from the borrower to the lender. The borrower undertakes to flag the transferred receivables in its systems.

Additionally, the guarantee agreement provides for the notification of the underlying debtors of the transferred receivables in the event of a default by the borrower under the loan(s). Following such an event, the debtors would pay their instalments to the lender, the beneficiary of the guarantee, directly, thus gradually redeeming the secured liability.

The following events generally constitute events of default that allow the lender to enforce the guarantee:

- any failure to pay, unless for technical reasons and if resolved within a certain timeframe;
- any important or significant failure to perform by the borrower under its obligations pertaining to the loan and/or the guarantee agreement, notably regarding its obligation to maintain a minimum level of collateralisation through the transfer of additional receivables;
- bankruptcy.

### Note:

- most secured liability facilities must remain secured until their maturity;
- some secured liability facilities need only be secured if SG's credit rating is below a certain level, which means that some liabilities will not be secured before their maturity;
- in all secured liability facilities, if they are secured at all, require over-collateralisation, the degree of which can vary based on SG's credit rating.

### TABLE 96: ENCUMBERED AND UNENCUMBERED ASSETS

|         |  |                                      | 31.12.2017                            |  |   |  |  |
|---------|--|--------------------------------------|---------------------------------------|--|---|--|--|
| (In EUR | m)   | Carrying amount of encumbered assets | Fair value of<br>encumbered<br>assets | Carrying amount of unencumbered assets | Fair value of<br>unencumbered<br>assets |  |  |
|         |  | 010                                  | 040                                   | 060                                    | 090                                     |  |  |
| 010     | Assets of the reporting institution                        | 166,569                              |                                       | 1,042,309                              |   |  |  |
| 030     | Equity instruments   | 48,508                               |                                       | 34,924                                 |   |  |  |
| 040     | Debt securities  | 38,199                               | 38,199                                | 58,313                                 | 58,313                                  |  |  |
| 050     | of which: covered bonds                                    | 133                                  | 139                                   | 642                                    | 642                                     |  |  |
| 060     | of which: asset-backed securities                          | 985                                  | 985                                   | 3,510                                  | 3,510                                   |  |  |
| 070     | of which: issued by general governments                    | 32,537                               | 32,537                                | 38,694                                 | 38,694                                  |  |  |
| 080     | of which: issued by financial corporations                 | 3,320                                | 3,320                                 | 11,648                                 | 11,648                                  |  |  |
| 090     | of which: issued by non-financial corporations             | 2,408                                | 2,408                                 | 2,490                                  | 2,490                                   |  |  |
| 120     | Other assets   | 79,423                               |                                       | 949,370                                |   |  |  |
| 121     | of which: Loans on demand                                  | 5,226                                |                                       | 127,477                                |   |  |  |
| 122     | of which: Loans and advances other than<br>loans on demand | 72,165                               |                                       | 542,609                                |   |  |  |
| 123     | of which: Other  | 2,002                                |                                       | 285,300                                |   |  |  |

### TABLE 97: COLLATERAL RECEIVED

|         |  | 31.12.2017   |   |  |
|---------|--|--|---|--|
|         |  |  | Unencumbered  |  |
| (In EUR | m)   | Fair value of encumbered collateral received or own debt securities issued | Fair value of collateral received<br>or own debt securities issued<br>available for encumbrance |  |
|         |  | 010  | 040   |  |
| 130     | Collateral received by the reporting institution                                   | 307,429  | 66,238  |  |
| 140     | Loans on demand  | 0  | 0   |  |
| 150     | Equity instruments   | 50,565   | 10,155  |  |
| 160     | Debt securities  | 254,887  | 54,639  |  |
| 170     | of which: covered bonds  | 2,018  | 5,501   |  |
| 180     | of which: asset-backed securities  | 1,890  | 4,826   |  |
| 190     | of which: issued by general governments  | 233,609  | 40,279  |  |
| 200     | of which: issued by financial corporations   | 13,035   | 12,154  |  |
| 210     | of which: issued by non-financial corporations                                     | 8,157  | 1,900   |  |
| 220     | Loans and advances other than loans on demand                                      | 0  | 0   |  |
| 230     | Other collateral received  | 0  | 0   |  |
| 240     | Own debt securities issued other than own covered bonds or asset-backed securities | 218  | 262   |  |
| 241     | Own covered bonds and asset-backed securities issued and not yet pledged           |  | 0   |  |
| 250     | TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED                   | 469,942  | 0   |  |

### TABLE 98: SOURCES OF ENCUMBRANCE

|   | 31.12   | 31.12.2017  |  |  |  |
|---|---|---|--|--|--|
| (In EUR m)  | Matching liabilities, contingent liabilities or securities lent | Assets, collateral received and own<br>debt securities issued other than<br>covered bonds and ABSs encumbered |  |  |  |
|   | 010   | 030   |  |  |  |
| 010 Carrying amount of selected financial liabilities | 323,553   | 330,968   |  |  |  |

### 9.5 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 99: LIQUIDITY RESERVE**

| (In EUR bn)  | 31.12.2017 | 31.12.2016 |
|--|------------|------------|
| Central bank deposits (excluding mandatory reserves)                     | 94         | 73         |
| HQLA securities available and transferable on the market (after haircut) | 64         | 79         |
| Other available central bank-eligible assets (after haircut)             | 16         | 16         |
| TOTAL  | 174        | 168        |

### 9.6 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 January 2013 and those pertaining to the NSFR on 31st October 2014.

The transposition of Basel 3 into European Union law under CRD4 and CRR1 was published on 27<sup>th</sup> June 2013, for implementation as from 1<sup>st</sup> January 2014. The French transposition was published in the French Official Journal (Journal Officiel) on 5<sup>th</sup> 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 10<sup>th</sup> October 2014. The LCR entered into force at European level on 1<sup>st</sup> October 2015. The corresponding minimum requirement was set at 70% for 2016, increasing gradually until it reached 100% as from 1<sup>st</sup> January 2018.

For the NSFR, the European Commission presented a proposal in November 2016 for transposition of the Basel regulations, which will be 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 2020. Societe Generale actively continued its work on transposing the Basel/European legislation and translating it into management standards within the Group. At Group level, the LCR is now managed based on the European standards. 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%: 140% at end-2017 (vs. 142% at end-2016).

### **LCR** ratios

The group manages its risk of liquidity by 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 portable among the main currencies.

At Group level, the LCR is now managed based on the European standards. 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%: 140% at end-2017 (vs. 142% at end-2016).

The LCR regulatory requirement must be respected in EURO, but it is also carried over into the major currencies of the JPY and USD. The LCR in JPY is higher than 100% for the group. The LCR in USD of the group is slightly llower than 100%.

The amounts related to derivatives are stable over the periods concerned. The significant changes observed in Table 100 (p.2016) are related to the quarterly deadlines.

### TABLE 100: LIQUIDITY COVERAGE RATIO - LCR DISCLOSURE TEMPLATE

| Scope of consolidation (Groupe) (In EUR m) |   | Total unweigh<br>(in avera |            | Total weighted value<br>(in average) |            |  |
|--|---|----------------------------|------------|--------------------------------------|------------|--|
| Quarter e                                  | nding on  | 30.09.2017                 | 31.12.2017 | 30.09.2017                           | 31.12.2017 |  |
| Number of                                  | f data points used in the calculation of averages   | 12                         | 12         | 12                                   | 12         |  |
| High-qual                                  | lity liquid assets  |                            |            |                                      |            |  |
| 1  | Total high-quality liquid assets (HQLA)   |                            |            | 144.5                                | 145.6      |  |
| Cash-outf                                  | flows   |                            |            |                                      |            |  |
| 2  | Retail deposits and deposits from small business customers, of which:   | 181.7                      | 183.2      | 13.7                                 | 14.1       |  |
| 3  | Stable deposits   | 113.0                      | 114.0      | 5.6                                  | 5.7        |  |
| 4  | Less stable deposits  | 68.7                       | 69.2       | 8.0                                  | 8.3        |  |
| 5  | Unsecured wholesale funding   | 202.1                      | 204.3      | 97.7                                 | 96.9       |  |
| 6  | Operational deposits (all counterparties) and deposits in networks of cooperative banks   | 55.6                       | 58.4       | 13.3                                 | 14.0       |  |
| 7  | Non-operational deposits (all counterparties)   | 135.6                      | 136.1      | 73.5                                 | 73.1       |  |
| 8  | Unsecured debt  | 10.9                       | 9.8        | 10.9                                 | 9.8        |  |
| 9  | Secured wholesale funding   |                            |            | 73.8                                 | 74.8       |  |
| 10   | Additional requirements   | 159.8                      | 160.6      | 61.9                                 | 61.4       |  |
| 11   | Outflows related to derivative exposures and other collateral requirements  | 44.0                       | 43.2       | 40.8                                 | 39.8       |  |
| 12   | Material outflows due to deterioration of own credit quality  | 4.9                        | 4.9        | 4.9                                  | 4.9        |  |
| 13   | Credit and liquidity facilities   | 111.0                      | 112.5      | 16.2                                 | 16.7       |  |
| 14   | Other contractual funding obligations   | 38.4                       | 52.6       | 38.4                                 | 52.6       |  |
| 15   | Other contingent funding obligations  | 49.7                       | 48.3       | 1.3                                  | 1.0        |  |
| 16   | TOTAL CASH OUTFLOWS   |                            |            | 286.9                                | 300.7      |  |
| Cash-inflo                                 | DWS   |                            |            |                                      |            |  |
| 17   | Secured lending (eg reverse repos)  | 70.0                       | 71.2       | 85.3                                 | 82.1       |  |
| 18   | Inflows from fully performing exposures   | 39.7                       | 37.7       | 30.6                                 | 29.0       |  |
| 19   | Other cash inflows  | 62.7                       | 75.0       | 59.5                                 | 72.5       |  |
| EU-19a                                     | (Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies) |                            |            | 0.0                                  | 0.0        |  |
| EU-19b                                     | (Excess inflows from a related specialised credit institution)  |                            |            | 0.0                                  | 0.0        |  |
| 20   | TOTAL CASH INFLOWS  | 172.4                      | 183.9      | 175.5                                | 183.5      |  |
| EU-20c                                     |   | 296.4                      | 299.5      | 175.5                                | 183.5      |  |
|  |   |                            |            | Total adjusted value                 |            |  |
| 21   | LIQUIDITY BUFFER  |                            |            | 144.5                                | 145.6      |  |
| 22   | TOTAL NET CASH OUTFLOWS   |                            |            | 111.4                                | 117.2      |  |
| 23   | LIQUIDITY COVERAGE RATIO (%)*   |                            |            | 131%                                 | 125%       |  |

The liquidity coverage ratio is calculated as the simple averages of month-end observations over the twelve months preceding the end of each quarter.

### 9.7 BALANCE SHEET SCHEDULE

The main lines comprising the Group's financial liabilities are presented in Note 3.13 to the consolidated financial statements of the Annual Report, under the following template:

### **TABLE 101: BALANCE SHEET SCHEDULE**

### **FINANCIAL LIABILITIES**

|   |   | 31.12.2017 |                     |           |           |         |  |  |  |  |
|---|---|------------|---------------------|-----------|-----------|---------|--|--|--|--|
| (In EUR m)  | Note to the consolidated financial statements | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total   |  |  |  |  |
| Due to central banks  |   | 5,601      | 2                   | 1         | 0         | 5,604   |  |  |  |  |
| Financial liabilities at fair value through profit or loss, excluding derivatives | Note 3.4                                      | 189,204    | 9,774               | 7,048     | 20,155    | 226,181 |  |  |  |  |
| Due to banks  | Note 3.6                                      | 48,212     | 12,078              | 22,862    | 5,469     | 88,621  |  |  |  |  |
| Customer deposits   | Note 3.6                                      | 320,277    | 21,602              | 19,941    | 48,812    | 410,633 |  |  |  |  |
| Securitised debt payables   | Note 3.6                                      | 31,527     | 14,165              | 37,802    | 19,741    | 103,235 |  |  |  |  |
| Subordinated debt   | Note 3.9                                      | 732        | 1,080               | 634       | 11,201    | 13,647  |  |  |  |  |

Note: The scheduling assumptions for these liabilities are presented in Note 3.13 to the consolidated financial statements of the Annual Report. The data are shown without provisional interest and excluding derivatives, which does not allow for a

reconciliation with the amounts under "Financial liabilities at fair value through profit or loss". Consequently, the impact of the debt revaluation linked to own credit risk and interest accrued at 31st December 2017 are not scheduled.

| 31 | .12 | 2.20 | 16 |
|----|-----|------|----|
|    |     |      |    |

| (In EUR m)  | Note to the consolidated financial statements | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total   |
|---|---|------------|---------------------|-----------|-----------|---------|
| Due to central banks  |   | 5,235      | 2                   | 1         | 0         | 5,238   |
| Financial liabilities at fair value through profit or loss, excluding derivatives | Note 3.1                                      | 234,561    | 8,103               | 7,879     | 16,439    | 266,982 |
| Due to banks  | Note 3.6                                      | 50,595     | 9,697               | 20,224    | 2,068     | 82,584  |
| Customer deposits   | Note 3.6                                      | 336,689    | 29,867              | 29,134    | 25,312    | 421,002 |
| Securitised debt payables   | Note 3.6                                      | 31,005     | 21,063              | 35,437    | 14,697    | 102,202 |
| Subordinated debt   | Note 3.9                                      | 296        | 90                  | 2,302     | 11,415    | 14,103  |

Symmetrically, the main lines comprising the corresponding financial assets are presented below.

### **FINANCIAL ASSETS**

|  |   | 31.12.2017 |                    |           |           |         |  |  |  |  |  |
|--|---|------------|--------------------|-----------|-----------|---------|--|--|--|--|--|
| (In EUR m)   | Note to the consolidated financial statements | 0-3 months | 3 months-1<br>year | 1-5 years | > 5 years | Total   |  |  |  |  |  |
| Cash, due from central banks   |   | 102,750    | 773                | 1,834     | 9,047     | 114,404 |  |  |  |  |  |
| Financial assets at fair value through profit or loss, excluding derivatives | Note 3.1                                      | 283,123    | 2,107              | 0         | 0         | 285,230 |  |  |  |  |  |
| Available-for-sale financial assets  | Note 3.3                                      | 129,492    | 8,620              | 0         | 1,886     | 139,998 |  |  |  |  |  |
| Due from banks   | Note 3.5                                      | 48,942     | 3,950              | 6,826     | 1,148     | 60,866  |  |  |  |  |  |
| Customer loans   | Note 3.5                                      | 93,630     | 60,791             | 169,802   | 71,364    | 395,587 |  |  |  |  |  |
| Lease financing and similar agreements                                       | Note 3.5                                      | 2,387      | 5,480              | 17,406    | 4,371     | 29,644  |  |  |  |  |  |

### 31.12.2016

| (In EUR m)   | Note to the consolidated financial statements | 0-3 months | 3 months-1<br>year | 1-5 years | > 5 years | Total   |
|--|---|------------|--------------------|-----------|-----------|---------|
| Cash, due from central banks   |   | 93,180     | 672                | 1,368     | 966       | 96,186  |
| Financial assets at fair value through profit or loss, excluding derivatives | Note 3.1                                      | 319,406    | 12,805             |           |           | 332,211 |
| Available-for-sale financial assets  | Note 3.3                                      | 128,861    | 8,526              |           | 2,017     | 139,404 |
| Due from banks   | Note 3.5                                      | 42,236     | 4,264              | 11,299    | 1,703     | 59,502  |
| Customer loans   | Note 3.5                                      | 103,586    | 52,652             | 147,769   | 93,636    | 397,643 |
| Lease financing and similar agreements                                       | Note 3.5                                      | 2,772      | 5,821              | 15,378    | 4,887     | 28,858  |

It should be noted that due to the nature of its activities, Societe Generale holds derivatives 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:

- 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 three months.
  - Positions measured using observable data other than quoted prices (L2 accounting classification): maturity of less than three months.
  - Positions measured mainly using unobservable market data (L3): maturity of three months to one year.

- 2. Available-for-sale assets (insurance company assets and Group liquidity reserve assets in particular)
  - Available-for-sale assets measured using prices quoted on active markets: maturity of less than three months.
  - Bonds measured using observable data other than quoted prices (L2): maturity of three months to one year.
  - Lastly, 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**

|  |   | 31.12.2017       |            |                     |           |           |         |  |  |  |
|--|---|------------------|------------|---------------------|-----------|-----------|---------|--|--|--|
| (In EUR m)   | Note to the consolidated financial statements | Not<br>scheduled | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total   |  |  |  |
| Revaluation difference on portfolios hedged against interest rate risk |   | 6,020            | 0          | 0                   | 0         | 0         | 6,020   |  |  |  |
| Tax liabilities  | Note 6  | 0                | 0          | 1,108               | 0         | 554       | 1,662   |  |  |  |
| 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         | 0       |  |  |  |
| Underwriting reserves of insurance companies                           | Note 4.3                                      | 0                | 14,204     | 8,717               | 33,841    | 74,196    | 130,958 |  |  |  |
| Provisions   | Note 8.3                                      | 6,117            | 0          | 0                   | 0         | 0         | 6,117   |  |  |  |
| Group shareholders' equity   |   | 59,373           | 0          | 0                   | 0         | 0         | 59,373  |  |  |  |

### 31.12.2016

| (In EUR m)   | Note to the consolidated financial statements | Not<br>scheduled | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total   |  |  |
|--|---|------------------|------------|---------------------|-----------|-----------|---------|--|--|
| Revaluation difference on portfolios hedged against interest rate risk |   | 8,460            | 0          | 0                   | 0         | 0         | 8,460   |  |  |
| Tax liabilities  | Note 6  | 0                | 0          | 984                 | 0         | 460       | 1,444   |  |  |
| Other liabilities*   | Note 4.4                                      | 0                | 81,893     | 0                   | 0         | 0         | 81,893  |  |  |
| Non-current liabilities held for sale                                  |   | 0                | 3,612      | 0                   | 0         | 0         | 3,612   |  |  |
| Underwriting reserves of insurance companies                           | Note 4.3                                      | 0                | 13,022     | 7,890               | 29,965    | 61,900    | 112,777 |  |  |
| Provisions   | Note 8.5                                      | 5,687            | 0          | 0                   | 0         | 0         | 5,687   |  |  |
| Group shareholders' equity   |   | 61,953           | 0          | 0                   | 0         | 0         | 61,953  |  |  |

<sup>\*</sup> Amounts restated relative to the financial statements published in 2016, following a change in the presentation of premiums on options to be paid and received.

### **OTHER ASSETS**

|   | 31.12.2017                                    |                  |            |                     |           |           |        |  |
|---|---|------------------|------------|---------------------|-----------|-----------|--------|--|
| (In EUR m)  | Note to the consolidated financial statements | Not<br>scheduled | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total  |  |
| Revaluation difference on portfolios  |   |                  |            |                     |           |           |        |  |
| hedged against interest rate risk   |   | 663              | 0          | 0                   | 0         | 0         | 663    |  |
| Held-to-maturity financial assets   | Note 3.9                                      | 0                | 0          | 0                   | 0         | 3,563     | 3,563  |  |
| Tax assets  | Note 6  | 6,001            | 0          | 0                   | 0         | 0         | 6,001  |  |
| Other assets  | Note 4.4                                      | 0                | 60,562     | 0                   | 0         | 0         | 60,562 |  |
| Non-current assets held for sale  |   | 0                | 1          | 12                  | 0         | 0         | 13     |  |
| Investments in subsidiaries and affiliates accounted for by the equity method |   | 0                | 0          | 0                   | 0         | 700       | 700    |  |
| Tangible and intangible fixed assets  | Note 8.4                                      | 0                | 0          | 0                   | 0         | 24,818    | 24,818 |  |
| Goodwill  | Note 2.2                                      | 0                | 0          | 0                   | 0         | 4,988     | 4,988  |  |

| 31. | 40    | 20  | 140 |
|-----|-------|-----|-----|
| .31 | . 1 / | -/U | ıιn |

| (In EUR m)  | Note to the<br>consolidated<br>financial<br>statements | Not<br>scheduled | 0-3 months | 3 months<br>-1 year | 1-5 years | > 5 years | Total  |
|---|--|------------------|------------|---------------------|-----------|-----------|--------|
| Revaluation difference on portfolios  |  |                  |            |                     |           |           |        |
| hedged against interest rate risk   |  | 1,078            |            |                     |           |           | 1,078  |
| Held-to-maturity financial assets   | Note 3.9   |                  |            |                     |           | 3,912     | 3,912  |
| Tax assets  | Note 6   | 6,421            |            |                     |           |           | 6,421  |
| Other assets*   | Note 4.4   |                  | 71,437     |                     |           |           | 71,437 |
| Non-current assets held for sale  |  |                  | 3,569      | 683                 |           |           | 4,252  |
| Investments in subsidiaries and affiliates accounted for by the equity method |  |                  |            |                     |           | 1,096     | 1,096  |
| Tangible and intangible fixed assets  | Note 8.4   |                  |            |                     |           | 21,783    | 21,783 |
| Goodwill  | Note 2.2   |                  |            |                     |           | 4,535     | 4,535  |

<sup>\*</sup> Amounts restated relative to the financial statements published in 2016, following a change in the presentation of premiums on options to be paid and received

- 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. Held-to-maturity financial assets have a residual maturity of more than five years.
- 3. Other assets and Other liabilities (guarantee deposits and settlement accounts, miscellaneous receivables) are considered as current assets and liabilities.
- 4. The notional maturities of commitments in derivative instruments are presented in Note 3.2 to the Group's
- consolidated financial statements. The net balance of transactions in derivatives measured at fair value through profit or loss on the balance sheet is EUR -8,074 million (according to the rules set above, this balance is classified as a trading liability < 3 months, see Note 3.4 to the consolidated financial statements).
- 5. Non-current assets held for sale have a maturity of less than one year, as do the associated liabilities.
- Investments in subsidiaries and affiliates accounted for by the equity method and Tangible and intangible fixed assets have a maturity of more than five years.
- 7. Provisions and shareholders' equity are not scheduled.

## **10**

## COMPLIANCE, REPUTATIONAL AND LEGAL RISKS

## 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.

### **10.1 COMPLIANCE**

### The Compliance system

The system for prevention of compliance risks is based on shared responsibility between the BU/SUs and CPLE, together with the entire Compliance function:

- operational entities (BU/SU) must integrate compliance with laws and regulations, the rules of good professional conduct, and the Group's internal rules into their daily work;
- CPLE and the Compliance function have two main duties: (i) advising and assisting the operational entities so that they may complete their tasks in compliance with their professional and regulatory obligations, and in keeping with the Group's commitments; and (ii) monitoring and assessing the relevance and efficiency of the system for monitoring and controlling compliance risks.

The Compliance function reports to the Group Compliance Division, which has become a full-function division since 1st January 2017. It is made up of teams dedicated to each business, teams dedicated to the supervision of the various risks and teams dedicated to controls, in addition to key cross-business functions, such as training and digital transformation.

The Legal, Tax, Human Resources, Corporate Social Responsibility, and Corporate Resources and Innovation Divisions support the Compliance function within the scope of their respective fields of expertise.

The Head of Group Compliance is responsible for the worldwide coordination of the Compliance function and of relations with the supervisory and regulatory authorities in this regard.

The Compliance Division manages the compliance control and reputational risk monitoring system. It ensures the consistency of the Group's system for prevention of compliance risks, its efficiency, and the development of appropriate relationships with banking supervisors and regulators.

The work carried out by the Compliance Division concerns the following main tasks:

- the definition and implementation of the overall normative framework, including the development, in collaboration with the Legal Department, of procedures intended to ensure compliance with the laws and regulations applicable to banking and financial activities, and the standards of conduct set by General Management;
- the adaptation and operational implementation of said normative framework within its scope of hierarchical authority, or else the monitoring of its implementation within its scope of functional supervision (Group subsidiaries);
- the second-level control and supervision of the system, including the independent assessment of compliance risk management within the entities/activities having a major impact on the Group's risk profile, and individually with respect to regulated employees, in compliance with regulations, in particular CRD4;
- the implementation of awareness-raising actions among Group employees regarding non-compliance risks and the strengthening of the Group's compliance culture;

the consolidation and monitoring of significant events within all entities, relying in particular on Group management dashboards and on the information provided by General Management and the Board of Directors, and, in coordination with the Legal Department, the monitoring of relations with banking supervisors and regulators.

The Head of Group Compliance attends meetings of the Group's highest management bodies. Information is reported in particular through presentations made to these bodies and during Committee meetings dedicated to compliance.

### **GROUP FINANCIAL CRIME COMPLIANCE SYSTEM**

Societe Generale has a comprehensive system to prevent and detect risks related to money laundering and terrorism financing, in addition to non-compliance with embargoes and financial sanctions.

This system is organised as follows:

- a central department responsible for supervising Group financial crime compliance and handling the most sensitive alerts;
- the Compliance officers for each business implement the financial crime compliance system within their scope and advise the operational teams;
- Anti-Money Laundering Officers (AMLO) are responsible for implementing the anti-money laundering and counter-terrorism financing system within their entities.

The entities located abroad must apply measures at least equivalent to French regulatory obligations and to the Group policy, while complying with local obligations. When local regulations impose additional obligations, said obligations must also be applied.

The financial crime compliance teams report suspicious activity to TRACFIN (a service of the French Ministry of Finance) for all of the Group's French entities (except Crédit du Nord and Boursorama Banque, which report directly), and submit reports on asset freezes and authorisation requests to the French Treasury for Societe Generale SA. Likewise, with respect to entities and subsidiaries located outside France, the AMLOs report suspicious activity to the equivalent local authorities.

### Applications dedicated to compliance enforcement

Tools enabling supervision of transactions ensure compliance with regulations and the detection of situations requiring special attention:

- exposure to money laundering and terrorism financing, and any market abuse, price manipulation and insider trading;
- exposure to embargo- and sanction-related risks, in particular in the event of identification of people, countries or activities targeted by national and international sanctions and by embargoes.

Furthermore, risk reporting and assessment tools are used to produce reports and reviews updating the Bank's managing bodies, supervisors, regulators, divisions, and more with any relevant information.

### Implementation of compliance policies

### **FINANCIAL CRIME COMPLIANCE**

### **Know your customer (KYC)**

Investments aimed at strengthening our knowledge of our customers were increased in 2017, and these efforts will continue. A risk-based approach is rolled out within the Group with respect to both new and existing customers.

### Anti-money laundering and counter-terrorism financing (AML/CTF)

New initiatives aimed at increasing the efficiency of the AML/CTF system and the vigilance of Group employees were implemented in 2017.

The following are of particular note:

- preparation of the entry into force of the Fourth European Anti-Money Laundering Directive and, in particular, the implementation of European Regulation 2015/847 on the quality of payment messages;
- training and awareness-raising efforts implemented with the launch of a new programme in September 2017 for all Group employees and the continued certification of financial crime compliance employees in terms of AML/CTF.

### **Embargoes and financial sanctions**

In 2017, the international environment was marked by new sanctions against North Korea and Venezuela, as well as strengthened measures against Russia, involving a highly complex implementation. Differences between the European and US regimes are likely to generate significant operational risks for financial institutions. In view of prevailing uncertainties, the Societe Generale Group does not intend to resume its commercial activities with Iran at this stage, and maintains a tightly regulated policy towards Russia.

To be noted for 2017:

- the continued strengthening of the workforce dedicated to embargoes in the Compliance function and the vocational training of employees, in particular through certifications concerning risks related to international sanctions;
- the strengthening of vigilance tools with respect to business relations.

### OTHER REGULATORY RISKS

### **Customer protection**

Customer protection is a major challenge for the Societe Generale Group in view of the reputational risk incurred in the event of breaches and sanctions. The Group must serve its customers' interests to the best of its ability. The importance of this issue is underscored in the Group's Code of Conduct, which was updated in October 2016, and in the Group's Culture & Conduct programme.

As part of implementing the main regulations, the Group has taken significant actions in terms of:

- dedicated training and awareness-raising among employees;
- adapting existing tools to new regulatory requirements (e.g. MiFID II);
- strengthening internal rules pertaining to customer claims (customer claims, conflicts of interest and social media).

### **Claims and mediation**

A claim is treated first and foremost as a commercial action which contributes to customer satisfaction.

Significant progress has been made by the core businesses over the last three years in terms of processing customer claims. The core businesses benefit from ad hoc governance, an organisation, human and IT resources, formalised procedures, and quantitative and qualitative monitoring indicators. The progress observed is also the result of significant awareness-raising and training initiatives conducted among employees.

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 strengthening customer protection measures in Europe.

### **Market integrity**

### **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.

### Market abuse

Since July 2016, a new legal framework has entered into force for market abuse within the European Union (MAR). Accordingly, in 2017 the Compliance function continued to implement efforts aimed at improving and ensuring the compliance of its system. Special attention was given to the modernisation of automated detection and analysis tools, and to the training of employees working in the Compliance function and responsible for these controls.

The Group has a "Market abuse" guideline (published in 2016) and a guideline on the "Management of privileged information on a listed issuer", which was revised during the year.

In particular, these guidelines highlight the measures to be implemented to prevent or detect market abuse practices undermining the integrity of financial markets, namely:

- insider trading (sending and using privileged information);
- market manipulation (price manipulation, disseminating false information).

### **Employee ethics**

Compliance with ethical policies is a key obligation under Societe Generale's rules of conduct. Procedures and their proper application are closely examined, including those related to the supervision of outside personnel (employees of service providers, temporary employees and trainees). Furthermore, the system for internal control of employees has included the regulatory requirements of the European Union concerning market abuse ("MAD II/MAR") since 2016.

### **Exceeding ownership thresholds**

The cross-business tool for monitoring equity interests and voting rights held by Societe Generale in listed issuers ensures worldwide compliance (104 countries) with regulations on the exceeding of share ownership thresholds (pursuant to the law or the by-laws, or during public offer periods).

It includes all forms of shares and derivatives with underlying equity securities held. These holdings are calculated in accordance with the specific rules in each country.

### Tax compliance

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 its tax residents, including if the accounts are held in wealth 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 combat 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 means of a tax return filed at the national level and the sharing of tax information between partner countries on the basis of existing bilateral tax treaties and inter-governmental agreements (IGAs).

Lastly, Societe Generale includes fiscal fraud in its anti-money laundering mechanism.

### **Anti-corruption measures**

The fight against corruption is intensifying. Many countries have anti-corruption laws and increasingly severe sanctions are regularly imposed on individuals and legal entities. France has significantly strengthened its legislative framework, with the entry into force on 1st June 2017 of the Sapin 2 Act regarding transparency, the fight against corruption and the modernisation of the economy, together with the simultaneous creation of the French anti-corruption agency (Agence française anticorruption – AFA) dedicated to preventing corruption and monitoring economic players.

To fight corruption, Societe Generale has long promoted strict principles which form part of its Code of Conduct and comply with the most stringent regulations in this regard, including the UK Bribery and Corruption Act (2011). As from 2000, Societe Generale has demonstrated its commitment in this area by joining the Wolfsberg Group and subscribing to the United Nations Global Compact in 2003.

Ahead of the entry into force of the Sapin 2 Act, Societe Generale launched a review of its system at the end of 2016 and has endeavoured to complete this review in order to comply with the eight measures. In accordance with this Act, an Anti-Corruption Code has been prepared, approved and incorporated into the Internal Rules of Societe Generale France. The normative documentation of all entities — in France and abroad — is being updated. Lastly, a training programme dedicated to the senior managers and employees with the greatest risk exposures has been initiated, with the support of a specialised firm. To date, more than 2,500 people across all regions and businesses have benefited from this programme.

#### **Data protection**

As a trusted partner of its customers, Societe Generale is particularly sensitive to personal data protection.

Societe Generale decided to reinforce its data protection system back in 2007. It therefore created a "Data Protection" Department within its Legal Department, specialising in all matters relating to privacy, and working in conjunction with the French Data Protection Commission (CNIL). This department assists, advises and informs all Societe Generale entities on data protection requirements, responds to assistance requests received from Group subsidiaries, and handles relations with the CNII

In anticipation of the implementation of a new European General Data Protection Regulation (GDPR), applicable as from 25th May 2018, Societe Generale launched an extensive Group-wide programme in 2016. This programme includes all the new requirements introduced by the GDPR, in particular regarding aspects of security and use of personal data and the implementation of strengthened rights for the people concerned. Within this environment, the Societe Generale Group appointed a Data Protection Officer in September 2017. Working within the Group Compliance Division, the Officer is responsible for ensuring a good level of Group compliance with European regulations.

In accordance with local and European regulations, the internal guidelines and related procedures describe the rules and procedures in place to guarantee the protection of customer and employee data.

#### Other regulatory matters

Following the operational implementation of several major regulatory texts by the businesses, in particular the French banking law of 26th July 2013, the Volcker reform, the DFA ("Dodd-Frank Act"), the EMIR ("European Market Infrastructure Regulation"), the Eckert Act, the FATCA ("Foreign Account Tax Compliance Act"), and Common Reporting Standards ("CRS"), the Compliance function continued their supervision in 2017.

#### THE PERMANENT CONTROL SYSTEM

The Compliance function is one of the three control functions of the Societe Generale Group (together with the risk and finance functions) that implements permanent second-level control to review the quality of the compliance checks performed by the businesses.

The roll-out of this control system is currently an important part of the second line of defence.

#### **MANAGEMENT OF REPUTATIONAL RISK**

Management of reputational risk is governed by an internal directive signed by the Chief Executive Officer of the Societe Generale Group. The control procedures implemented are intended to prevent, identify, assess and control risks.

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 Compliance Committee (Group COM-CO) and to the Risk Committee (CR).

#### THE COMPLIANCE FUNCTION'S TRANSFORMATION PROGRAMME

The Group has launched a transformation programme targeting the Compliance function and covering the 2015-2020 period. This programme is aimed at (i) strengthening compliance risk control through heightened vigilance and awareness-raising applicable to all players, including the businesses, their support staff and the other divisions, (ii) increasing the operational efficiency of all related processes, and (iii) meeting the requirements of supervisory and regulatory authorities in the long term.

This programme provides for updated governance and greater resources allocated to the Compliance function, whether in terms of recruitment, training, or modernisation of dedicated information systems. It also provides for updating of the normative framework and risk assessments, together with strengthening of controls.

This programme includes a component specific to business operations in the United States, which are subject to special monitoring by General Management and the Board of Directors. The close monitoring of this programme will continue in 2018 with updated commitments in order to include both changes in Group governance and regulators' requirements, with the support of all three lines of defence (business, compliance, internal audit). Lastly, it should be noted that the programme's contribution to implementation of the new regulations is helping to accelerate this transformation.

#### United states remediation compliance plan

On 14th December 2017, Societe Generale and Societe 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.

The Order requires Societe Generale and SGNY to enhance governance and oversight of SGNY's Financial Crime Compliance Program to achieve compliance with certain BSA/AML requirements and to hire an external consultant to conduct a comprehensive review of SGNY's compliance with BSA/AML requirements. Following this review, the Order requires SGNY to implement an enhanced Financial Crime Compliance Program and an enhanced customer due diligence program.

#### Looking ahead to 2018

Since 1st June 2017, the Compliance Division has reported to a Deputy Chief Executive Officer of the Group, as a full-function division, just like the Risk Division.

The new organisation established in early 2018 will enable a closer relationship with the businesses, while consolidating the supervision and overall management of compliance risks, thanks in particular to:

greater professionalism in the teams and a stronger compliance culture within the Group; the "Culture & Conduct" programme, supervised directly by General Management, the rules and principles of which go beyond regulatory requirements, aims to develop training and awareness-raising initiatives for employees and management;

- the use of digital and new technologies to drive operational efficiency;
- greater human and financial resources allocated to Group Compliance, which will continue to be strengthened in 2018.

#### **10.2** RISKS AND LITIGATION

The information pertaining to risks and litigation is included in Note 9 to the consolidated financial statements, page 444 of Registration Document.

# OTHER RISKS

### In brief

This section describes equity risks and other risks not described in previous chapters.

#### 11.1 EQUITY RISK

#### **Investment strategies and purpose**

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 under available-for-sale financial assets insofar as these equity investments may be held for an indefinite period or may be sold at any time.

Societe Generale Group's exposure to equity investments that are not part of the trading book is equal to their book value net of impairments.

The following table presents these exposures at end-December 2017 and 2016, 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 102: BANKING BOOK EQUITY INVESTMENTS AND HOLDINGS

| (In EUR m)  | 31.12.2017 | 31.12.2016 |
|---|------------|------------|
| Banking book equity investments and holdings - Accounting scope       | 15,365     | 14,657     |
| o.w. equities and other AFS instruments                               | 13,447     | 12,447     |
| o.w. AFS equities held over the long term                             | 1,918      | 2,210      |
| Banking book equity investments and holdings - Prudential scope (EAD) | 6,194      | 6,746      |
| o.w. listed shares  | 81         | 188        |
| o.w. unlisted shares  | 6,113      | 6,558      |

Changes in fair value are recognised in Group shareholders' equity under "Unrealised or deferred capital gains and losses". In the event of a sale or durable impairment, changes in the fair value of these assets are recorded in the income statement under "Net gains and losses on available-for-sale financial assets". Dividends received on equity investments are recognised in the income statement under "Dividend income".

For listed shares, the fair value is estimated based on the closing share price. For unlisted shares, the fair value is estimated based on the category of financial instrument and one of the following methods:

- the share of net assets owned;
- the valuation based on recent transactions involving the Company's shares (acquisition of shares by third parties, expert valuations, etc.);
- the valuation based on recent transactions involving companies in the same sector (earnings or NAV multiples, etc.).

#### TABLE 103: NET GAINS AND LOSSES ON BANKING BOOK EQUITIES AND HOLDINGS

| (In EUR m)   | 31.12.2017 | 31.12.2016 |
|--|------------|------------|
| Gains and losses on the sale of shares                   | (38)       | 752        |
| Impairment of assets in the equity                       | (64)       | (36)       |
| In proportion to the net income on the equity portfolios | 109        | 56         |
| Net gains/losses on banking book                         | 7          | 772        |
| Unrealised gains/losses on holdings                      | 450        | 546        |

#### **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 2017, the Group's risk-weighted assets related to its non-trading equity portfolio, and its capital requirements, were as follows:

#### TABLE 104: CAPITAL REQUIREMENTS RELATED TO BANKING BOOK EQUITIES AND HOLDINGS(1)

| (In EUR m)           | 31.12.2017      |           |                     |                            | 31.12.2016           |                     |                            |                      |
|----------------------|-----------------|-----------|---------------------|----------------------------|----------------------|---------------------|----------------------------|----------------------|
| Equities & holdings  | Approach        | Weighting | Exposure at default | Risk<br>weighted<br>assets | Capital requirements | Exposure at default | Risk<br>weighted<br>assets | Capital requirements |
| Private equity       | Standard        | 150%      | 4                   | 7                          | 1                    | 8                   | 12                         | 1                    |
| Private equity       | Simple approach | 190%      | 198                 | 376                        | 30                   | 233                 | 442                        | 35                   |
| Financial securities | Simple approach | 250%      | 933                 | 2,331                      | 186                  | 963                 | 2,406                      | 192                  |
| Listed shares        | Simple approach | 290%      | 20                  | 59                         | 5                    | 68                  | 199                        | 16                   |
| Unlisted shares      | Simple approach | 370%      | 4,615               | 17,076                     | 1,366                | 4,499               | 16,647                     | 1,332                |
| TOTAL                |                 |           | 5,770               | 19,849                     | 1,588                | 5,771               | 19,706                     | 1,576                |

<sup>(1)</sup> Excluding cash investments.

#### 11.2 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 by the Executive Committee under the authority of the General Management, with the assistance of the Group Management Committee. The Executive Committee meets once a week, barring exceptions. The makeup of these various bodies is laid out in the Corporate Governance chapter of this Registration Document (p. 71 and following). The Internal Rules of the Board of Directors (provided in Chapter 7 of this Registration Document, p. 546) lay down the procedures for convening meetings.

#### 11.3 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 the General Management, the Group's businesses present their results and comment on the state of business, and also present an analysis of their consumption of their budget and scarce resources (especially capital and liquidity).

#### 11.4 RISKS RELATING TO INSURANCE ACTIVITIES

Through its insurance subsidiaries, the Group is also exposed to a variety of risks inherent to this business. These include ALM risk management (risks related to interest rates, valuations, counterparties and exchange rates) as well as premium pricing risk, mortality risk and structural risk related to life and non-life insurance activities, including pandemics, accidents and

catastrophes (such as earthquakes, hurricanes, industrial disasters, terrorist attacks or military conflicts).

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. 385).

#### 11.5 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,

(p. 237 and following); in particular, information on risks related to climate change can be found on page 272.

#### 11.6 CONDUCT RISK

Conduct risk results from actions (or inactions) or behaviours of the bank or its employees, inconsistent with our Code of Conduct, which may lead to adverse consequences for our 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 & Conduct programme in 2018 (see pages 239 and following).

## 12 **APPENDIX**

#### **12.1** PILLAR 3 CROSS REFERENCE TABLE

| CRD1/CRR<br>Article | Theme  | Risk and Pillar 3 Report reference (except reference to the Registration Document) | Page in<br>Pillar 3<br>Report |
|---------------------|--|--|-------------------------------|
| 90 (CRD4)           | Return on assets   | 3.2 Scope of application - regulatory scope  | 56                            |
| 435 (CRR)           | 1. Risk management   | 3.1 Corporate governance structure and main bodies                                 | 22                            |
|                     | objectives and policies  | 2 Governance and risk management organisation                                      | 8                             |
| 436 (a)(b) (CRR)    | 2. Scope of application  | 3 Capital management and adequacy  | 24                            |
|                     |  | 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   | Scope  | 45;155                        |
| 437 (CRR)           | 3. Own funds   | 3 Capital management and adequacy  | 40                            |
| 438 (CRR)           | 4. Capital requirements  | 3 Capital management and adequacy  | 52                            |
| 439 (CRR)           | 5. Exposure to counterparty credit risk  | 4 Credit risks   | 70-76                         |
|                     |  | 4 Impact of netting and collateral held on exposure values                         | 148                           |
|                     |  | 4 Exposures on credit derivatives  | 147                           |
| 440 (CRR)           | 6. Capital buffers   | 3 Capital management and adequacy  | 40                            |
| 441 (CRR)           | 7. Indicators of global systemic importance                                      | SG website - Information and publication section                                   |                               |
| 442 (CRR)           | 8. Credit risk adjustments   | 4 Credit risks   | 70                            |
|                     |  | 4 Changes in stock of general and specific credit risk adjustments                 | 136                           |
| 443 (CRR)           | 9. Unencumbered assets   | 9 Liquidity risk   | 201                           |
| 444 (CRR)           | 10. Use of ECAIs   | 5 Securitisation   | 163                           |
| 445 (CRR)           | 11. Exposure to market risk  | 6 Market risks   | 168                           |
| 446 (CRR)           | 12. Operational risk   | 7 Operational risks  | 184                           |
| 447 (CRR)           | 13. Exposures in equities not included in the trading book                       | 11 Equity risk   | 220                           |
| 448 (CRR)           | 14. Exposure to interest rate risk on positions not included in the trading book | 8 Structural interest rate and exchange rate risks                                 | 192                           |
| 449 (CRR)           | 15. Exposure to securitisation positions   | 5 Securitisation   | 152 and follow.               |
| 450 (CRR)           | 16. Remuneration policy  | First update of the Registration Document (planned)                                |                               |
| 451 (CRR)           | 17. Leverage   | 3 Capital management and adequacy  | 56                            |
| 452 (CRR)           | 18. Use of the IRB Approach to credit risk                                       | 4 Credit risks   | 79                            |
| 453 (CRR)           | 19. Use of credit risk mitigation techniques                                     | 4 Credit risks   | 75                            |
| 454 (CRR)           | 20. Use of the Advanced Measurement<br>Approaches to operational risk            | 7 Operational risks  | 184                           |
| 455 (CRR)           | 21. Use of Internal Market Risk Models   | 6 Market risks   | 168                           |

#### 12.2 PILLAR 3 CROSS REFERENCE TABLE WITH THE RECOMMANDATIONS MADE BY THE ENHANCED DISCLOSURE TASK FORCE - EDTF

| No.      | Recommendation   | Details   | Page in<br>Pillar 3<br>Report | Page in the<br>Registration<br>Document |
|----------|--|---|-------------------------------|---|
| 1        | Present all related risk information together in any particular report | <ul> <li>Chapter 1 (description of the Group, strategy, presentation of the businesses)</li> <li>Chapter 2 (Management Report, balance sheet structure, recent developments and outlook)</li> <li>Report of risks, capital adequacy, Pillar 3)</li> </ul> | 5 and fol.                    | 8 and follow.<br>10 and follow.         |
| 2        | Definition of the principal terms and metrics used                     | Availability of a glossary of the principal terms used<br>Definitions as necessary in the chapters concerned  | 235                           |   |
|          |  | - credit risks  | 70                            | )                                       |
|          |  | - market risks  | 167                           |   |
|          |  | - operational risks General concepts of IFRS 9  | 184<br>77                     |   |
| 3        | Definition and classification  | Key figures   | 4-5                           |   |
|          | of risks and risk outlook  | Types of risks  | 17                            | •                                       |
|          |  | Risk factors  | 8                             |   |
|          |  | Recent developments and outlook   |                               | 13                                      |
|          |  | Description of impairments in IFRS 9  | 78                            |   |
| 4        | Definition of regulatory changes                                       | Fully-loaded Basel 3 capital ratio  | 52                            |   |
|          | and new key ratios   | Phase-in stages   | 52                            |   |
|          |  | Additional GSIB buffer  | 40                            |   |
|          |  | Leverage ratio  | 56                            |   |
|          |  | LCR   | 205                           |   |
|          |  | NSFR  | 205                           |   |
| 5        | Risk governance  | Governance  |                               | 72                                      |
|          |  | Governance and risk management organisation   | 7-35                          |   |
|          |  | Risk management principles (summary diagram)  | 70                            |   |
|          |  | Credit risks  | 70                            |   |
|          |  | Market risks  | 168                           |   |
|          |  | Operational risks   | 184                           |   |
| <u> </u> | Dials aultura  | Implementation strategy of IFRS 9   | 77                            |   |
| 6        | Risk culture   | Organisation and governance of the risk management system   | 22                            |   |
| 7        | Key figures for the businesses,  | Key Group figures   |                               | 15                                      |
|          | risk appetite,   | Description of the businesses   | 4.0                           | 16                                      |
|          | risk management  | Risk appetite   | 18<br>4                       |   |
|          |  | Risk key figures Governance of risk management  | 22                            |   |
| 0        | Ctrops tost quotom   | · · · · · · · · · · · · · · · · · · ·   |                               |   |
| 8        | Stress test system   | General description Credit stress tests   | 18<br>70                      |   |
|          |  | Market risk stress tests  | 173                           |   |
|          | Comital warming manufa   |   |                               |   |
| 9        | Capital requirements   | Capital requirements by type of risks Additional GSIB buffers   | 52<br>40                      |   |
| 10       | Information on the composition   | Composition of regulatory capital   | 49                            |   |
| 10       | of regulatory capital Reconciliation                                   | Details of regulatory capital   | 57                            |   |
|          | of accounting and regulatory data                                      | Reconciliation of the accounting balance sheet  | 41;67                         |   |
|          |  | and the regulatory balance sheet  | ,0.                           |   |
|          |  | Reconciliation of accounting capital and regulatory capital   | 50                            | )                                       |
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| 6       | 90                          |  | Internal model values for trading portfolios (MR3)   | 180                           |   | MR3  |
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| 7       | 92                          | 32                                       | Risk-weighted assets and capital requirements for operational risk   | 190                           | 216                                     |  |
| 8       | 93                          | 33                                       | Measurement of the entities' sensitivity to a 1% interest rate shift, indicated by maturity                              | 195                           | 218                                     |  |
| 8       | 94                          | 34                                       | Sensitivity of the Group's interest margin   | 195                           | 219                                     |  |
| 8       | 95                          | 35                                       | Sensitivity of the common equity Tier1 ratio of the Group to a 10% currency change (in basis points)                     | 196                           | 220                                     |  |
| 9       | 96                          |  | Template A- Assets   | 202                           |   | AE-ASS   |
| 9       | 97                          |  | Template B- Collateral received  | 203                           |   | AE-COL   |
| 9       | 98                          |  | Template C- Encumbered assets/ collateral received and associated liabilities  | 203                           |   | AE-SOU   |
| 9       | 99                          | 36                                       | Liquidity reserve  | 204                           | 223                                     |  |
| 9       | 100                         |  | Liquidity coverage ratio - LCR disclosure template   | 206                           |   | EU-LIQ1  |
| 9       | 101                         | 37                                       | Balance sheet schedule   | 207                           | 224                                     |  |
| 11      | 102                         | 38                                       | Banking book equity investments and holdings   | 219                           | 234                                     |  |
| 11      | 103                         | 39                                       | Net gains and losses on banking book equities and holdings   | 219                           | 234                                     |  |
| 11      | 104                         | 40                                       | Capital requirements related to banking book equities and holdings   | 220                           | 234                                     |  |

#### 12.4 CROSS REFERENCE TABLE APPLICABLE TO THE MAIN EXTERNAL **CREDIT ASSESSMENT INSTITUTIONS - EXCERPT**

#### 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       | Α     | BBB      | BB            | В        | 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       | Α     | BBB      | BB            | В        | CCC, CC, C, RD, D    |
| Corporate finance obligations- Long-term ratings scale | AAA AA        | Α     | BBB      | BB            | В        | CCC, CC, C           |
| Long-term international IFS ratings scale              | AAA, AA       | Α     | BBB      | BB            | В        | 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       | Α     | Baa      | Ва            | В        | 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       | Α     | BBB      | BB            | В        | CCC, CC, R, SD/D     |
| Long-term issues ratings scale                         | AAA, AA       | Α     | BBB      | BB            | В        | CCC, CC, C, D        |
| Insurer financial strength ratings scale               | AAA, AA       | Α     | BBB      | BB            | В        | 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)<br>to AA (low) (sf)         | A (high) (sf)<br>to A (low) (sf)     | BBB (high) (sf)<br>to BBB (low) (sf) | BB (high) (sf)<br>to BB (low) (sf) | Lower than BB (low) (sf) |
| Commercial paper and short-term debt rating scale | R-1 (high) (sf)<br>to R-1 (low) (sf) | R-2 (high) (sf)<br>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<br>AA (low) (sf)   | A<br>(high)<br>(sf) | A<br>(sf)  | A<br>(low)<br>(sf) | BBB<br>(high)<br>(sf) | BBB<br>(sf)  | BBB<br>(low)<br>(sf) | BB<br>(high)<br>(sf) | BB<br>(sf)  | BB<br>(low)<br>(sf) | Lower than<br>BB (low) (sf) |
| Commercial paper and short-term debt rating scale | R-1 (high) (sf)<br>to R-1 (low) (sf) | R-2 (high) (sf)<br>to R-2 (low) (sf) | R-3<br>(sf)         |            |                    |                       |              |                      |                      |             |                     | Lower than<br>R-3 (sf)      |
| Fitch Ratings                                     |                                      |                                      |                     |            |                    |                       |              |                      |                      |             |                     |                             |
| Long-term issuer credit ratings scale             | AAAsf                                | AA+sf<br>to AA-sf                    | A+sf                | Asf        | A-sf               | BBB+sf                | BBBsf        | BBB-sf               | BB+sf                | BBsf        | BB-sf               | Lower than<br>BB-sf         |
| Short-term rating scale                           | F1+sf,<br>F1sf                       | F2sf                                 | F3sf                |            |                    |                       |              |                      |                      |             |                     | Lower than<br>Bsf           |
| Moody's Investors Service                         |                                      |                                      |                     |            |                    |                       |              |                      |                      |             |                     |                             |
| Global long-term rating scale                     | Aaa(sf)                              | Aa1(sf)<br>to Aa3(sf)                | A1<br>(sf)          | A2<br>(sf) | A3<br>(sf)         | Baa1<br>(sf)          | Baa2<br>(sf) | Baa3<br>(sf)         | Ba1<br>(sf)          | Ba2<br>(sf) | Ba3<br>(sf)         | Lower than<br>Ba3(sf)       |
| Global short-term rating scale                    | P-1(sf)                              | P-2(sf)                              | P-3(sf)             |            |                    |                       |              |                      |                      |             |                     | NP(sf)                      |
| Standard & Poor's Ratings Ser                     | vices                                |                                      |                     |            |                    |                       |              |                      |                      |             |                     |                             |
| Long-term issuer credit ratings scale             | AAA (sf)                             | AA+ (sf)<br>to AA- (sf)              | A+<br>(sf)          | A<br>(sf)  | A-<br>(sf)         | BBB+<br>(sf)          | BBB<br>(sf)  | BBB-<br>(sf)         | BB+<br>(sf)          | BB<br>(sf)  | BB-<br>(sf)         | Lower than<br>BB- (sf)      |
| Short-term issuer credit ratings scale            | A-1+ (sf),<br>A-1 (sf)               | A-2<br>(sf)                          | A-3<br>(sf)         |            |                    |                       |              |                      |                      |             |                     | Lower than<br>A-3 (sf)      |

#### **12.5** 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                  |

#### 12.6 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.



