Main risks in the Risk Appetite Framework

Introduction

Banco Sabadell Group has a Risk Appetite Framework in place which is intended to guarantee the control and proactive management of all of the Group's risks. This framework includes a risk appetite statement (RAS), which establishes the amount and diversity of risks that the Group seeks and tolerates in order to achieve its business goals while maintaining a balance between risk and returns.

The Banco Sabadell Group's Risk Appetite Framework takes into account the Group's international structure in order to ensure consistent and effective deployment of the Group's RAS in all geographies.

A first tier comprises the Group's RAS, setting overall objectives and limits, and a second tier provides details of the first-tier objectives and limits in the various geographies.

The RAS comprises quantitative metrics that allow risk management to be monitored objectively, as well as qualitative aspects that complement the quantitative aspects and set out the Group's position in relation to risks that cannot be easily quantified.

These quantitative metrics are divided into:

— Basic first-tier metrics: quantitative aspects that allow the accepted risks to be monitored objectively and enable them to be controlled and managed efficiently, both at Group level and in the various geographies.

— Second-tier metrics: quantitative aspects at portfolio level that allow the stock of existing loans as well as new production to be monitored and which enable accepted risks to be controlled and managed efficiently.

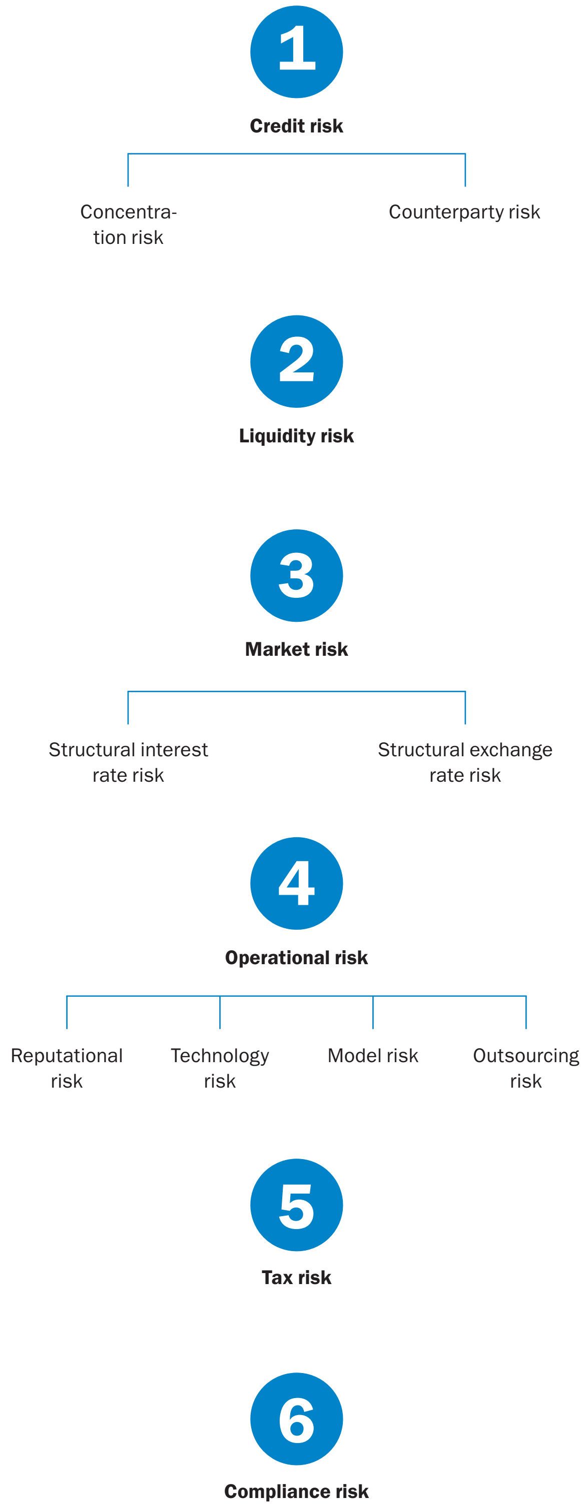
The risk management and control approach consists of a broad framework of advanced measurement principles, policies, procedures and methodologies integrated into an efficient decision-making structure under a governance framework for the risk function that conforms to Spanish and European law.

The Banco Sabadell Group's risk policies are a set of documents that are reviewed regularly, following the established governance, the Board of Directors having ultimate responsibility.

For each of the Group's significant risks, the policies describe the principles and critical management parameters, the main people and units involved and their duties (including the roles and responsibilities of the various departments and committees in relation to risks and their control systems), the associated procedures, and the monitoring and control mechanisms (G2).*

The main financial risks facing Banco Sabadell Group companies as a consequence of their activities associated with the use of financial instruments are credit risk, liquidity risk and market risk. The most important of these

G2 Main risks



for the Group's loan book is credit risk.**

The main non-financial risks faced by the Group are operational risk, technology risk, tax risk and compliance risk.

When managing risks, the Group considers the macroeconomic and regulatory environments.***

General principles of risk management

Corporate risk culture

Banco Sabadell's risk culture is one of its distinguishing features and is well established throughout the organisation as a result of continuous development over decades. Among the aspects that characterise this strong risk culture are:

— A high level of Board of Directors involvement in risk management and control procedures. The bank has had a Risk Committee since before 1994, and its main function is to oversee the management of all significant risks and align them with the risk profile defined by the Group.

— Banco Sabadell Group has had a Risk Appetite Framework in place since 2014. It includes the Risk Appetite Statement, which guarantees the control and proactive management of risks under a strengthened framework of corporate governance, which has been approved by the Board of Directors.

— The Basic Management Team as a fundamental part of risk acceptance and monitoring. Under this approach, which has been in existence for more than 20 years, the team consists of the relationship manager and the risk analyst. The process combines the viewpoints of both parties. All decisions must be discussed and resolved by agreement between them. This ensures that the Commercial and Risks units work together as a single team and guarantees their involvement in decision-making processes, contributing to the quality of discussions and the soundness of the conclusions, while improving the customer experience.

— Proactive management by consensus within the Basic Management Team regarding actions that need to be taken with respect to customers, in terms of both growth and prevention, by applying a forward-looking approach to managing the shared portfolio.

— Career paths that offer the opportunity to work as part of both the Commercial team and the Risks team, which allows staff to increase their cross-functional skills, contributes to their professional growth and allows them to increase their knowledge of customers by providing them with a single overarching vision.

— High degree of specialisation: specific management teams for each segment (real estate, corporate, businesses, SMEs, retail, banks and countries, etc.), allowing for a specialised management approach in each area.

— Advanced internal credit scoring models have been in place as a basic part of the decision-making process for over fifteen years (since 1999 for individuals and since 2000 for businesses). In accordance with best practices, the Group relies on these models to improve the general efficiency of the risk management process. Insofar as these models not only make it possible to sort borrowers in terms of risk but also serve as the basis for quantifying risk, they lend themselves to multiple uses in key management processes: fine-tuning delegations of powers, efficient risk tracking, overall risk management, risk-adjusted returns, and analysis of the Group's capital adequacy, among others.

— The delegation of powers to approve corporate risk transactions is based on the expected level of loss. As a general policy on empowerment, the Bank applies a system in which the various levels are delimited on the basis of expected loss, which considers the exposure to the risk of the customer's proposed credit transaction and the risk group, expected default rate and estimated loss given default.

— Rigorous credit risk monitoring, supported by an advanced system of early warnings for corporates and individuals, which is integrated into a tool with a comprehensive forward-looking vision of customers. Risk monitoring at customer and group level can be divided into three types: operational, systematic and comprehensive. One of the basic sources used for this monitoring is an early warning system for both businesses and individuals (implemented in 2008 and 2011, respectively) which allows credit risk to be identified in advance. These warnings are based on internal information such as the number of days non-performing, overdrafts on commercial discounting facilities, bank guarantees and international loans, as well as external information, such as customers classed as defaulters in the rest of the financial system and information available from credit bureaux.

— An advanced non-performing asset risk management model that strengthens the specialised forward-looking approach to risk management. A comprehensive management model which allows different options to be applied to situations in which default is most likely (early default management, forbearance, debt collection, etc.). This comprehensive system uses specific tools (simulators to identify the best solution in each case) and specialised managers in each segment who work exclusively on risk management.

— Risk-adjusted pricing. Commercial pricing policy is dynamic, adapting constantly to changing economic and

*** For additional information, see Note 4 to the 2018 consolidated financial statements.**
**** See the capital map in the chapter "Banco Sabadell Group financial information".**
***** For information on the macroeconomic and regulatory environment, see the chapter on "Economic, business and regulatory environment".**

financial market conditions (liquidity premia, difficulty in accessing credit, interest rate volatility, etc.). The cost of funding and cost of risk (expected credit loss and cost of capital) are taken into account in order to avoid adverse selection caused by inadequate identification of the risk. Risk models play a vital role in determining prices and profitability targets.
— The risk management model is fully integrated into the Bank's technology platform, with the result that policies are applied immediately in everyday processes: the policies, procedures, methodologies and models that make up Banco Sabadell's risk management approach are built into the Bank's operating platform. This proved particularly important when integrating the Group's acquisitions.
— Stress testing as a management tool: For some years, Banco Sabadell has been using an internal tool to perform stress tests, supported by in-house teams with extensive experience in its development.

Risk Appetite Framework

The Risk Appetite Framework includes, among others, a risk appetite statement (RAS), defined as the quantity and diversity of risks that the Banco Sabadell group seeks and tolerates in order to achieve its business objectives while maintaining a balance between risk and returns.

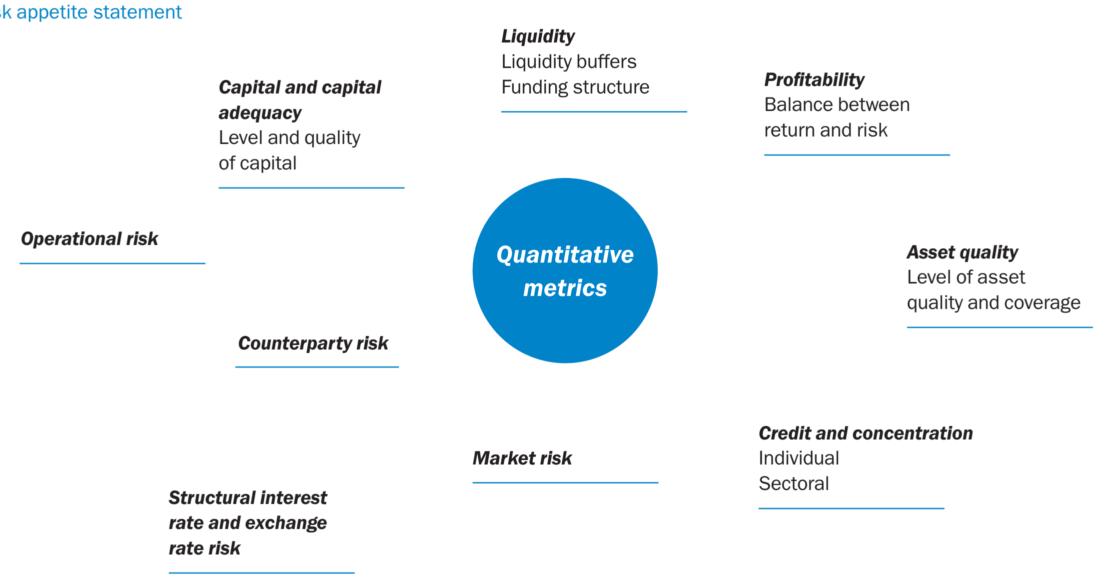
The RAS is composed of quantitative metrics (G3) which allow for objective monitoring of the achievement of objectives and of established limits, and qualitative elements that supplement these metrics and guide the Group's risk control and management policy.

Qualitative aspects

In addition to the quantitative metrics, the following main qualitative metrics guide the Group's risk control and management approach:
— The Group's general position with regard to risk aims to achieve a medium-to-low risk profile through the use of a prudent, balanced risk policy that will ensure profitable, sustainable business growth, and guarantee that it is aligned with the Group's strategic objectives in order to maximise value creation while ensuring an appropriate level of capital adequacy.
— The Board of Directors is committed to the risk management and control processes: approval of policies, limits, management model and procedures, and the measurement, monitoring and control methodology.
— The Group maintains a risk culture that is embedded throughout the institution and has various units that specialise in specific risks. The risk function conveys this culture by introducing policies, implementing and rolling out internal models, and adapting these to the risk management processes.
— Risk management policies and procedures are oriented to adapting the risk profile to the Risk Appetite Framework while maintaining and pursuing a balance between expected returns and risk.
— The Banco Sabadell Group risk management and control system is set up as an extensive framework of principles, policies, procedures and advanced assessment methodologies that are integrated into an efficient decision-making structure. The risk variable is factored into decisions in all areas and quantified using a common metric in terms of allocated capital.

Quantitative elements

G3 Risk appetite statement



— Risk management is underpinned by solid, ongoing procedures for checking that risks conform to pre-defined limits, with clearly defined responsibilities for identifying and tracking indicators and early warnings, and an advanced risk assessment methodology.
— Capital and liquidity levels should be sufficient to enable the institution to cover the risks it has accepted, even in adverse economic situations.
— Risk concentration should not reach a level such as to significantly compromise shareholders' funds.
— Market trading risk is assumed in order to handle the flow of transactions arising from customer business and to seize market opportunities while maintaining a position that is commensurate with the Bank's market share, risk appetite, capacity and profile.
— The risk function is independent and has strong senior management involvement, ensuring a robust risk culture focused on protecting capital and an adequate return on capital.
— The Group's aim in terms of tax risk is to ensure compliance with tax obligations while guaranteeing an adequate return for shareholders.
— Achievement of the business objectives must be compatible, at all times, with compliance with the law and the application of best practices.
— The Group must have sufficient human and technological resources to track, control and manage all the risks that may arise in the course of its business.
— The Group's compensation systems should align the interests of employees and senior management with compliance with the Risk Appetite Framework.

Overall organisation of the risk function

The Group has a risk culture that is integrated into all of its units. It has units managing different risk types, so as to guarantee the independence of the risk function, combined with strong senior management involvement.

The Board of Directors is the body responsible for establishing the general guidelines on the organisational distribution of the risk management and control functions and for determining the main lines of strategy in this respect. For this reason, the Board of Directors is the body responsible for approving the Risk Appetite Framework (developed in cooperation with the Managing Director, the Chief Risk Officer and the Chief Financial Officer) and ensuring that it is aligned with the bank's short- and long-term objectives, as well as with the business plan, capital planning, risk capacity and compensation programmes.

There are four Board sub-committees to which the Board of Directors delegates its functions using the powers conferred on it in the Articles of Association; the sub-comittees report to the Board of Directors about the performance of their functions and any decisions they adopt (G4).

The Group's control framework is based on three lines of defence, structured around the following assignment of functions:

First line of defence

This consists mainly of the business units and corporate centres, principally the Risk Management Department, the Finance Department, the Treasury and Capital Markets Department, and the IT Control Department. The first line of defence is responsible for managing the risks inherent in the bank's activity, mainly the acceptance, monitoring and assessment of these risks, and the associated processes.

Board committees related to risk management

Risk Committee	Executive Committee	Audit and Control Committee	Remuneration Committee
Supervision of the risk profile and suitability of the RAS	Approval of transactions by delegation Approval of the asset allocation strategy	Supervision of the efficacy of internal control, internal audit and risk management systems	Oversight of remuneration policy and its alignment with the Risk Appetite Framework

Main committees related to risk management

Technical Risk Committee	Asset/Liability Committee	Credit Transactions Committee	Asset and Capital Transactions Committee	Operational Risk Committee	UK Coordination Committee
Risk Committee support Risk management	Balance sheet structural risk monitoring and management	Approval of credit transactions by delegation	Approval of asset transactions by delegation	Operational risk management and monitoring	Guarantee alignment between TSB and Group policies

G4 Board sub-committees and main committees related to risks

It is responsible for implementing corrective actions to remedy weaknesses in processes and controls. The essential functions attributed to this line under the control framework are:
— Maintaining effective internal controls and performing risk assessment and control procedures on a daily basis.
— Identifying, assessing, controlling and mitigating risks, following established internal policies and procedures and ensuring that activities are consistent with the bank's targets and objectives.
— Establishing proper management and supervision processes to ensure regulatory compliance and focusing on control errors, inadequate procedures and unexpected events.

Second line of defence
This consists essentially of:
— The Risk Control Department, which is independent of the first line of defence and is responsible for identifying, measuring, monitoring and controlling the Group's significant risks and for providing information about such risks.
— The Compliance Department, whose goal is to minimise the possibility of regulatory breaches and ensure that any breaches that occur are diligently identified, reported and resolved and that the appropriate preventive measures are implemented.
— The Internal Validation Department, which is responsible for checking that the models work as expected and that their results are appropriate to their uses, both internal and regulatory.

In general, the second line of defence ensures that the first line of defence is well designed and fulfils the functions assigned to it, and puts forward suggestions for continuous improvement. The essential functions attributed to this line under the control framework are:
— Proposing the risk management and control framework.
— Guiding and ensuring the application of the risk policies, defining responsibilities and objectives for their effective implementation.
— Collaborating with the management team to develop risk management processes and controls.
— Identifying changes in the organisation's underlying risk appetite.
— Verifying compliance with the regulations applicable to the Group in conducting its business activities.
— Providing the technological infrastructure for risk management, measurement and control.
— Analysing and cross-checking existing and future incidents by reviewing the information.
— The internal validation function, which is responsible for checking that these models work as expected and that their results are appropriate to their uses, both internal and regulatory.
— Promoting and endeavouring to reach the highest levels of compliance with the legislation in force and principles of professional ethics within the Group.
— Guaranteeing both the operational continuity of the ordinary business and the security of the information that sustains it.

Third line of defence
Underpinned by the Internal Audit Department, it performs the following functions.
— Verification and advisory activities on an independent and objective basis, governed by a philosophy of adding value and helping the Group to fulfil its objectives.
— Assists the Group in meeting its objectives by providing a systematic, disciplined approach to evaluating the sufficiency and effectiveness of the organisation's governance processes and the risk management and internal control activities.

Planning and stress testing

The Banco Sabadell Group has an internal process for planning and stress testing involving teams with extensive experience in such exercises, which involve carrying out an in-depth analysis of how the Group's income statement and balance sheet would perform in a specific scenario.

The risk forecasting models represent a key aspect of the Group's management activities, as they enable an assessment to be made of the ways in which a range of economic scenarios might impact the Group's capital position and its attainment of its target risk appetite. These scenarios set out the main risk factors that might affect the Group's results and solvency. Three main uses of the forecasting techniques developed by the Group have been identified: drafting the Strategic Business plan, performing internal stress tests, and executing regulatory stress tests.

The internal forecasting exercises, Strategic Business Plan and stress tests are not carried out independently; they share certain common factors in terms of the definition of the economic scenarios used for such purposes and also in relation to other exercises such as liquidity stress tests and the development of recovery plans.

The internal economic scenarios are described in terms of the main macroeconomic aggregates (GDP, unemployment rate, etc.) and in terms of financial variables (home prices, interest rates, exchange rates, etc.) and they generally follow the structure described below:
— Baseline scenario: this is the most likely economic scenario and it is used to prepare the Strategic Business Plan and also as the baseline scenario for the internal capital adequacy assessment process (ICAAP) and the internal liquidity adequacy assessment process (ILAAP).
— Global adverse systemic scenario: this is an adverse scenario that assumes a global recession and, though possible, has a low probability of arising. This scenario is used as the most adverse scenario when preparing the ICAAP and it is also shared with the ILAAP.
— Specific adverse scenarios: these are adverse scenarios that reflect situations that are relevant to the Group's specific risk profile, e.g. Brexit.
— Recovery scenario: this is the most adverse scenario

possible. It is based on the global adverse systemic scenario but includes an additional level of stress which makes it suitable for the purposes of a recovery plan.

Strategic Business Plan

The Group draws up a Strategic Business Plan which sets out the institution's strategy over a certain period of time (currently 2018-2020). The Plan is also monitored on a regular basis, and it is updated every year to ensure it takes into account the most recent evolution of the portfolios and risks undertaken by the Group. This projection is carried out on the basis of the most likely economic scenario for the key geographies (baseline scenario), and it is also used as the baseline scenario in the ICAAP. The economic scenario is described in terms of the key risk factors impacting the Group's income statement and balance sheet.

The Strategic Business Plan's projection exercises and monitoring are integrated into management procedures, as they set out the key aspects of the Group's medium- and long-term strategy. The Plan is prepared at business unit level, on the basis of which the Group manages its activity, and annual results are also assessed in terms of compliance with the target risk appetite.

Together with the internal stress test results, the outcomes of the projections used to prepare and monitor the Strategic Business Plan are a necessary input for assessing the suitability of the thresholds (targets or tolerance limits) defined in order to quantify the Group's risk appetite.

Internal stress tests

Under the framework of the ICAAP, the Group regularly carries out multi-year stress testing exercises (over a 3-year projection period) in order to assess the potential impacts that adverse economic scenarios could have on the Group's capital position and on fulfilment of its Risk Appetite Framework. The macroeconomic scenarios are designed and selected to reflect feasible but unlikely adverse situations, which are also in line with the particular characteristics of the Group's business: composition and geographical location of the risks.

The Group's internal stress testing exercises are integrated into its management procedures. They assess the impact of adverse economic scenarios on the level of compliance with the Risk Appetite Framework, as well as the impact of a potential adverse scenario on each business unit. The results of the tests are sent to the governing bodies for approval, thereby ensuring that the Group's management team has access to the necessary information to assess the Group's solvency and the degree of compliance with its risk appetite under adverse scenarios.

The results of tests of this type are used as input for the review and definition of the thresholds (targets or tolerance limits) relating to the metrics used to define the Group's risk appetite.

These scenarios are complemented with the identification of specific events, under the framework of reverse stress testing exercises, which could represent significant risks for the Group's solvency.

Regulatory stress tests

The Group takes part in regulatory stress tests conducted by the European Banking Authority together with competent national authorities, the European Central Bank and the European Systemic Risk Board. These tests are conducted every two years. They cover the main risks undertaken by the Group, assess the institution's capital position under a baseline scenario and under an adverse scenario over a three-year time horizon, and they serve as a basis for establishing Pillar 2G. The main new feature in 2018 with respect to the previous stress tests was the inclusion of IFRS 9 when projecting credit losses.

The Group carries out its regulatory stress test using existing internal approaches, although subject to the methodological restrictions of the regulatory stress test. This enables the results of the regulatory stress test to be analysed and considered in internal processes and provides additional input with which to assess the internal stress tests, and vice versa. Like other forecasting exercises, the results of the stress tests are submitted to the Group's management bodies for approval.

Managing and monitoring the main risks

Credit risk

Credit risk is the possibility that losses may be incurred as a result of borrowers failing to honour their obligations or through losses in value due simply to deterioration in borrower quality.

Credit risk management framework

Risk acceptance and monitoring

Credit risk exposure is subjected to rigorous monitoring and control through regular reviews of borrowers' creditworthiness and their ability to honour their obligations to the Group, with exposure limits for each counterparty being adjusted to levels that are deemed to be acceptable. It is also normal practice to mitigate exposure to credit risk by requiring borrowers to provide sureties.

The Board of Directors grants powers and autonomy to the Executive Committee to allow the latter to delegate responsibilities to other decision-making levels. The implementation of authority thresholds for credit approval ensures that powers delegated at each level are linked to the expected loss calculated for each transaction that is requested.

To optimise the business opportunities provided by each customer and guarantee an appropriate level of security, responsibility for accepting and monitoring risks is shared between the account manager and the risk analyst who, by maintaining effective communication with the units involved, are able to obtain a comprehensive (360°), forward-looking view of each customer's individual circumstances and needs.

The relationship manager monitors the business aspect through direct contact with customers and by handling their day-to-day banking, while the risk analyst takes a more system-based approach using specialised knowledge.

The implementation of advanced risk management methodologies (in line with the New Basel Capital Accord and industry best practices) also benefits the process by ensuring that proactive measures can be taken once a risk has been identified. Of vital importance in this process are tools such as credit rating systems for corporate borrowers and credit scoring systems for retail customers, as well as early warning indicators for monitoring risk. These are integrated into a single tool that provides a comprehensive forward-looking vision of customers.

By analysing indicators and early warning alerts in addition to credit rating reviews, the quality of a risk can be monitored constantly in an integrated way. The establishment of efficient procedures to manage performing loans also benefits the management of past-due loans by enabling a proactive policy to be devised based on a preliminary identification of any cases with a propensity to default.

Risk is tracked in all exposures in order to identify possible problematic situations and avoid a deterioration in credit quality. In general, this monitoring is based on early warning systems at both transaction/borrower and portfolio level, and both systems use the firm's internal information and external information in order to obtain results. Risk tracking is forward-looking, i.e. seeking to predict changes in circumstances so as to take action with an impact on the business (increase lending) and prevent risk (reduce exposure, enhance collateral, etc.).

The early warning system gives an integrated measurement of the quality of a given risk and enables it to be referred to recovery specialists, who will determine the procedures that should be applied. Therefore, based on risks exceeding a certain limit and on the predicted default rates, groups or categories are identified for individual treatment. These warnings are managed complementarily by the account manager and the risk analyst.

Managing non-performing risks

Generally, during stages of weakness of the economic cycle, debt forbearance and restructuring are the main risk management techniques used. In the case of debtors or borrowers that have, or are expected to have, financial difficulties in meeting their payment obligations in the contractual terms, the Bank's objective is to facilitate repayment of the debt by minimising the likelihood of non-payment. A number of common policies to achieve this are in place, as well as procedures for the approval, monitoring and control of debt forbearance and restructuring processes, the most significant of which are the following:

— Having a sufficiently detailed compliance record for the borrower and evidence of a clear intention to repay the loan, assessing the time-frame of the financial difficulties they are experiencing.
— Forbearance and restructuring conditions based on a realistic repayment schedule which is in line with the borrower's current and expected repayment capacity, preventing issues being put off until a later date.
— If new guarantees are provided, they must be regarded as a secondary and exceptional means of recovering the debt, so as to avoid impairing the existing means. In any event, all ordinary interest accrued must be paid up to the refinancing date.
— Limitations on grace periods.

The Group continually monitors compliance with current terms and conditions and with these policies.

Internal risk models

Banco Sabadell Group also has a system which is made up of three lines of defence to ensure the quality and oversight of internal models, as well as a governance process which has been specifically designed to manage and monitor these models and to ensure compliance with the regulations and the supervisor's instructions.

The governance framework for internal credit risk and impairment models (risk management, regulatory capital and provisions) is underpinned by:

— Effective management of changes to internal models.
— Recurring monitoring of the internal model environment.
— Regular reporting, both internal and external.
— Tools for managing internal models.

One of the main bodies within the governance framework for internal credit risk and impairment models is the Models Committee, which convenes on a monthly basis and has the function of approving (depending on the materiality level) and tracking internal credit risk models.

The Banco Sabadell Group also has an advanced model for managing non-performing exposures. The purpose of managing non-performing exposures is to identify the best solution for the customer as soon as there are any signs of impairment so as to prevent customers in difficulties from reaching a situation of default by working the problem intensively and avoiding lags between phases.*

*** For further quantitative information, see Schedule VI of the consolidated financial statements "Other risk information: Refinancing and restructuring operations".**

Real estate loan risk management

As part of its ongoing risk management and, in particular, its policy on the construction and real estate sectors, the Group has a number of specific policies for mitigating risks.

The main measures that are implemented are continuous risk monitoring and reassessment of the borrower's creditworthiness in their new circumstances. If the borrower is found to be creditworthy, the existing arrangements are continued as originally agreed, and commitments are renegotiated if they offer a better fit to the customer's new circumstances.

The policy varies as a function of the type of asset that is being financed. For completed property developments, sale support actions are carried out through the Group's distribution channels, by setting a competitive price which will attract demand and by offering finance to end buyers provided that they meet the risk requirements. For projects in progress, the main objective is to complete construction, provided that short- and medium-term market prospects are sufficient to absorb the resulting supply of dwellings.

As regards financing for land and plots, the possibility of selling the future homes is also considered before financing construction.

Where the analysis and tracking do not indicate a reasonable degree of viability, the solution may take the form of a surrender of assets in settlement of the debt ("dation in payment") and/or the purchase of the assets.

Where a solution of this kind is not practicable, legal proceedings are taken to foreclose.

Assets taken into possession by the Group, whether through the dation in payment, purchase, or court-ordered repossession, whether in debt collection or to execute other credit enhancements, are mainly foreclosed tangible assets received from borrowers and other obligors of the Bank to settle financial assets representing a debt claim held by the bank, and they are managed actively with the primary purpose of divestment.

Depending on the stage of completion of the construction process in the case of real estate assets, three strategic lines of action have been established.

1 New funding: real estate development

In late 2014, a commercial unit was re-established to deal exclusively with new lending to real estate developers based on the identification of a market need and the existence of solvent new players. This unit has a new monitoring methodology that gives the Group detailed information about all the projects that the unit is considering (land/floor area, number of units, sales volume, construction budget and level of pre-sales).

In parallel, a new Real Estate Analysis Department was created to analyse all applications for finance for real estate projects from a purely real estate business standpoint, focusing on the location and the suitability of the product, as well as the current potential supply and demand, cross-checking with the figures in the business plan presented by the customer (costs, sales and deadlines are key factors). The new analysis model is accompanied by a method for tracking developments that the bank agrees to finance. The progress of each real estate development project is monitored using standardised reports in order to control drawdowns and fulfilment of the business plan (sales, costs and timelines).

Under the new management model, alerts are defined for tracking by both the Analysis and Monitoring Department and the Risks Department, both of which participated in defining the alerts. In addition to the alerts for funded developments, new funding is based on the development framework, which defines the optimal allocation of new business as a function of the quality of the customer and of the development.

2 Managing non-performing real estate loans

Non-performing exposures are managed in line with the defined policy. Risk management generally takes account of the customer, the collateral and the loan status, ranging from the first early warning about a performing loan to the adoption of dation in payment or purchase by mutual agreement, or foreclosure and auction.

After analysing those three dimensions, the optimal solution is adopted in order to stabilise or liquidate the position, by mutual agreement or judicial means, depending on developments with the individual customer and case. If it is not possible to stabilise the loan or have the customer settle, there are number of backup options depending on the type of loan and the asset it funds. In the case of finished developments or non-residential buildings, the possibility is offered of marketing them via Solvia at prices that can generate demand in the market. In the case of land for building, the possibility of additional debt with which to develop homes is offered if the Bank's internal teams identify proven demand for housing in the area; they take charge of overseeing the loan and the selling process. For other properties, the possibility of sale to third parties is considered, solutions by mutual agreement are proposed (purchase, or dation in payment, which may be accompanied, in the case of residential properties, by favourable conditions to enable the borrower to relocate or obtain social housing, depending on the circumstances); judicial proceedings are a last resort.

3 Managing foreclosed properties

Once the loan is converted into real estate, a management strategy is established based on the asset type and location in order to identify its possibilities on the basis of potential demand. Sale is the main exit mechanism; for this purpose, the Bank, via Solvia, has developed a range of channels depending on the type of property and customer. Those channels are successful, as evidenced by the large volume of homes sold every year, the sizeable growth in the volume of non-residential properties, zoned land and pre-zoned land that is sold after market interest has been generated in these property types, and the fact that third parties rely on Solvia to market their properties.

In the case of certain sites and plots of pre-zoned land in areas with strong demand potential and scope for considerable price appreciation, the Bank invests to optimise the outcome, taking account of projected margins under conservative development assumptions.

Due to having previously reached a high level of concentration in this risk, the Group has an RAS tier-1 metric which establishes a maximum level of concentration for real-estate development in Spain. This metric is monitored on a monthly basis, and is reported to the Risk Technical Committee, the Risk Committee and the Board of Directors.

The Risk Control Department, together with the Business and Risk Management Departments, also regularly monitors the degree to which new lending conforms to the framework established for property developers, including a review of compliance and of asset allocation. The outcome is reported to the Risk Technical Committee.*

Credit risk management models

Credit rating

Credit risks incurred with corporates, developers, projects with specialised funding, financial institutions and countries are rated using a system based on predictive factors and an internal estimate of the probability of default.

The rating model is reviewed annually based on an analysis of behaviour patterns in defaulted loans. Each internal rating score is assigned to a projected default rate, which allows consistent comparisons to be made across segments and with the ratings produced by independent rating agencies, according to a master scale (G5).

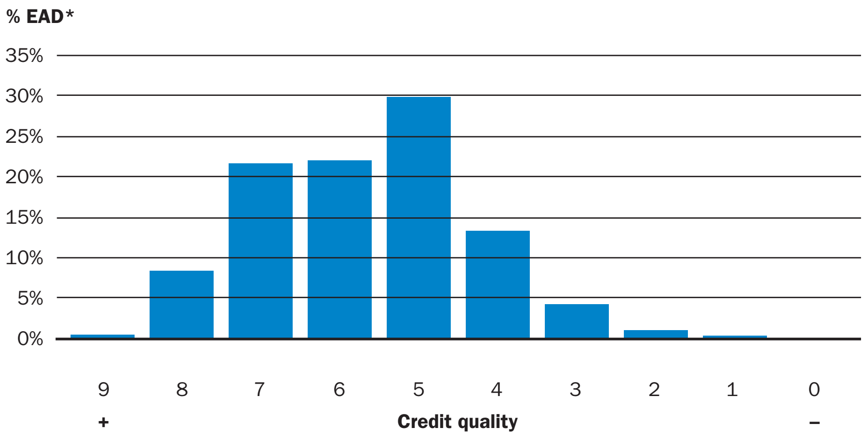
Scoring

In general, credit risks undertaken with individual customers are rated using scoring systems based on a quantitative model of historical statistics to identify meaningful predictive factors. In geographies where scoring is used, it is divided into two types.

Behavioural scoring: the system automatically classifies customers based on information regarding their activity and each product. It is used primarily for such purposes as granting loans, setting overdraft limits, targeting sales campaigns, and for monitoring and segmenting in claim and/or recovery procedures.

Reactive scoring: this approach is used to evaluate applications for personal loans, mortgage loans and credit cards. Once all the transaction data has been entered, the system calculates a result based on the estimated creditworthiness and financial profile and any collateral.

If no scoring system exists, individual assessments supplemented with policies are applied (G6).



G5 Company loan rating profile

* EAD (exposure at default)

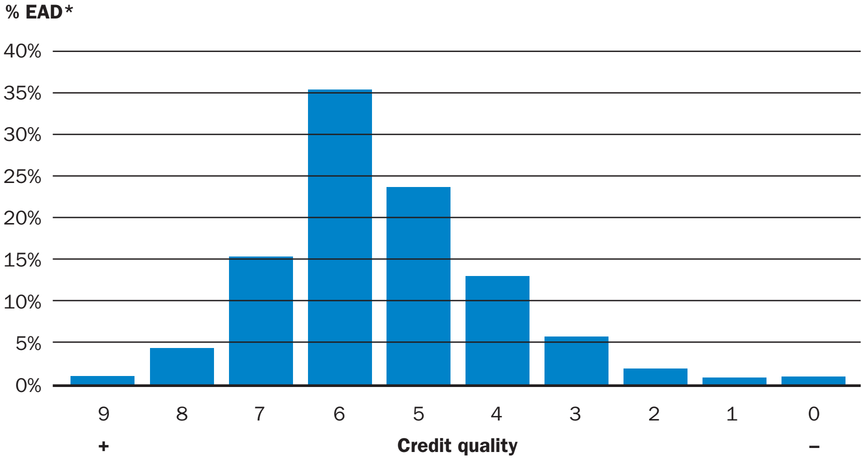
* For further quantitative information, see Schedule VI of the consolidated financial statements "Credit risk: Risk concentration and exposure to the construction and real estate sectors".

Warning tools

In general, Banco Sabadell Group has a system of early warnings comprised of both individual warnings and advanced early warning models in place for both corporates and private individuals. These early warnings are based on behavioural indicators that rely on available sources of information (rating or scoring, customer files, balance sheets, CIRBE — Bank of Spain Central Credit Register, industry and operating performance, etc.). They model the risk posed by a customer on a short-term basis (predicted propensity to default) and have achieved a high level of accuracy in detecting potential cases of default. The score, which is produced automatically, is included in the monitoring process as one of the basic inputs in tracking the risk posed by individuals and companies.

This alert system allows for:

— Efficiency to be improved, as monitoring exercises focus on customers with the lowest credit rating or score (different cut-off points for each group).
— Early action to manage any negative change in the customer's situation (change in score, serious alerts, etc.).
— Regular oversight of customers whose situation remains unchanged and who have been evaluated by the Basic Management Team.



G6 Individual customer portfolio credit score profile

* EAD (exposure at default)

Outstanding lending increased by +3.5% (in like-for-like terms) due to strong lending to SMEs and large corporates.

NPAs were reduced by 7.8 billion in 2018.

T1 Credit risk exposure

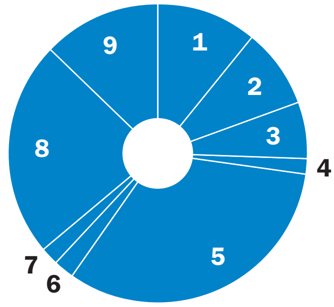
€M

	2017	2018
Maximum credit risk exposure		
Financial assets held for trading	**131.76**	**324.69**
Equity instruments	7.43	7.25
Debt securities	124.33	317.44
Loans and advances	—	—
Financial assets not held for trading that are measured obligatorily at fair value through profit or loss	**39.53**	**141.31**
Equity instruments	39.53	—
Debt securities	—	141.31
Loans and advances	—	—
Financial assets at fair value through other comprehensive income	**13,187.17**	**13,247.06**
Equity instruments	413.30	270.34
Debt securities	12,773.87	12,976.72
Financial assets at amortised cost	**164,457.77**	**167,850.73**
Debt securities	11,748.66	13,132.06
Loans and advances	152,709.11	154,718.67
Derivatives	**1,814.76**	**2,022.25**
Total financial asset exposure	**179,630.99**	**183,586.04**
Guarantees given	1,983.14	2,040.79
Contingent liabilities given	20,906.05	22,645.95
Guarantees	9,916.99	8,233.23
Total off-balance sheet exposure	**32,806.19**	**32,919.96**
Total maximum credit risk exposure	**212,437.18**	**216,506.00**

Table 1 shows the financial assets exposed to credit risk, broken down by portfolio and instrument at year-end, indicating the carrying amount as representing the highest level of exposure to credit risk, inasmuch as it reflects the borrower's highest level of debt at the reference date.

The Group also maintains guarantees and loan commitments with borrowers, materialised by the establishment of guarantees provided or commitments inherent in credit facilities up to an availability level or limit, ensuring financing for the customer when the latter needs it. Those facilities also require the Group to assume credit risk and are subject to the same management and monitoring systems as described above.*

Figure G7 shows the distribution of credit risk across the Group's segments and portfolios.



G7
Overall risk profile by customer category (distribution of credit risk exposure) %EAD (Exposure at default)

1	Large corporates	11.1
2	Midsize businesses	8.4
3	Small businesses	6.3
4	Retailers and sole proprietors	1.5
5	Mortgage loans	32.5
6	Consumer loans	2.4
7	Banks	1.9
8	Sovereign	23.3
9	Other	12.6

Credit risk mitigation

Credit risk exposure is subject to rigorous monitoring and oversight through regular reviews of borrowers' creditworthiness and their ability to honour their obligations to the Group, with exposure limits for each counterparty being set at levels that are deemed to be acceptable. It is also normal practice to mitigate exposure to credit risk by requiring borrowers to provide sureties.

Generally, these take the form of real collateral, mainly mortgages on properties used as housing, whether finished or under construction. The Group also accepts, although to a lesser degree, other types of collateral, such as mortgages on business premises, industrial warehouses, etc., and financial assets. Another common credit risk mitigation technique is to accept guarantees, in this case subject to the guarantor presenting valid proof of solvency.

Legal certainty is secured in all these mitigation techniques by signing legal agreements that are binding on all parties and can be enforced in all pertinent jurisdictions to ensure, at all times, that the guarantee can be executed. This entire process is subject to internal verification of the legal adequacy of these contracts, and legal opinions of international specialists can be obtained where the contracts are subject to foreign law.

Collateral is formalised before a notary in the form of a public instrument to ensure enforceability vis-à-vis third parties. The public instruments referring to mortgage loans are also registered at the pertinent registry to ensure that they are fully valid and enforceable vis-à-vis third parties. In the case of pledges, the pledged goods are normally deposited with the Bank. Unilateral cancellation by the debtor is not permitted, and the guarantee remains in force until the debt is discharged in full.

Personal guarantees or bonds are established in favour of the Bank and, barring exceptional cases, are also formalised before a notary in the form of a public instrument

* For more information, see note 26 and Schedule VI to the 2018 consolidated financial statements, which present quantitative data on collateral and commitments with respect to loans granted and credit risk exposure by geographical area, respectively.

in order to achieve the utmost legal certainty and be able to seek enforcement via the courts in the event of non-payment. They constitute an irrevocable debt claim against the guarantor that is payable on first demand.

In addition to risk mitigation through the establishment of formal guarantees between the debtors and the entity, the acquisition of Banco CAM provided the group with an additional guarantee for a certain asset portfolio: the Asset Protection Scheme (APS), retroactive from 31 July 2011 and for a period of ten years (for more details, see Note 2 to the 2018 consolidated financial statements).

The Bank has not received significant guarantees which it is authorised to sell or pledge, irrespective of any non-payment by the owner of such guarantees, except for those intrinsic to the treasury business, which are mostly repos with maturities of no more than six months, as a result of which their fair value does not differ substantially from their carrying amount.

The main concentration of risk in relation to all these types of collateral or credit enhancements refers to the use of the mortgages as a credit risk mitigation technique in loans to fund the construction of homes or other types of real estate. Exposures secured with mortgage loans represent 61.1% of total gross lending.

The NPL ratio continues to decline and now stands at 4.2%.

The NPA coverage ratio was 52.1% in 2018.

Credit quality of financial assets

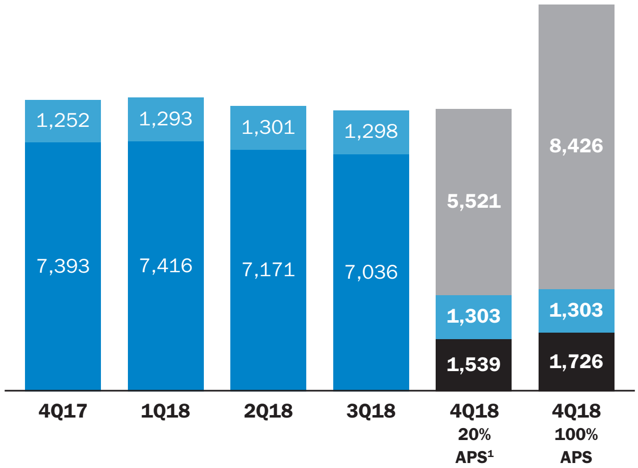
The Group generally uses internal models to rate most borrowers (or transactions) with which credit risk is incurred. These models have been designed in line with the best practices proposed by the New Basel Capital Accord (NBCA). Nonetheless, not all portfolios giving rise to credit risk use internal models, partly due to the fact that a minimum level of default experience is required to reasonably design such a model.

The percentage exposure of the institution calculated using internal models, for solvency purposes, is 79%. That percentage has been calculated following the TRIM guidelines (Article 31.a).

The breakdown of total exposure, based on internal ratings, is shown in figures G8 and G9.

Stage 3 loan performance improved in 2018, as the balance declined by €1,372 million, leading to an NPL ratio of 4.2% at year-end.

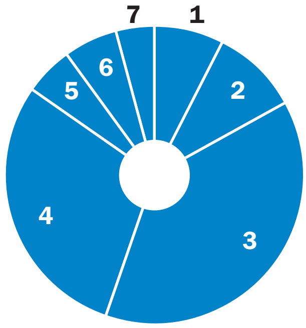
Active management by the Bank resulted in a notable reduction in NPAs in 2018 (G10, G11 & G12).



● Solvia Desarrollos Inmobiliarios

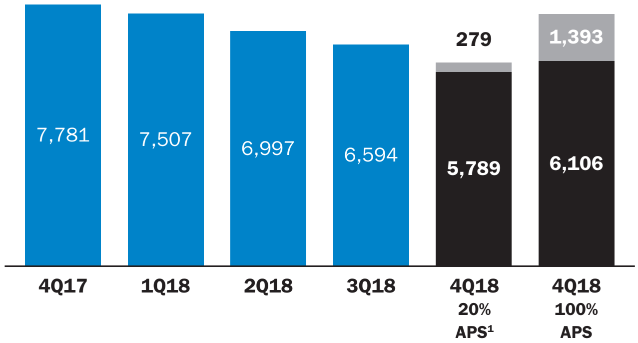
● Pro forma the institutional sales of problematic assets announced in 2Q18 and reclassified as non-current assets available for sale

G10 Foreclosed assets excl. TSB (€M)



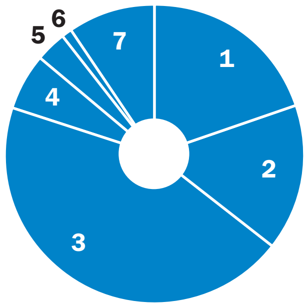
G8
Breakdown of exposure, by rating (M€)

1	AAA/AA	13,659
2	A	17,465
3	BBB	69,265
4	BB	53,020
5	B	9,623
6	Others	10,772
7	No assigned rating/scoring	7,218



● Pro forma the institutional sales of problematic assets announced in 2Q18 and reclassified as non-current assets available for sale

G11 NPLs, excl. TSB (€M)

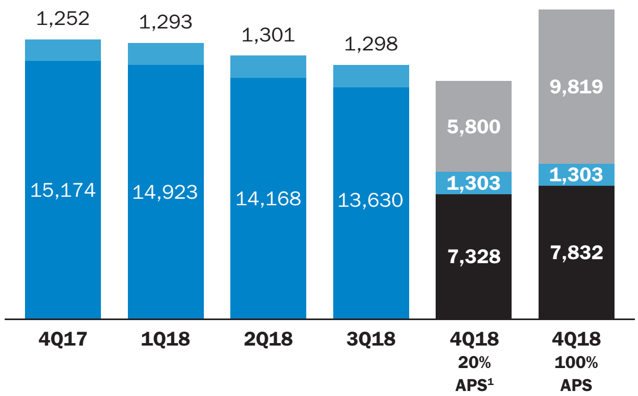


G9
Breakdown of total off-balance sheet exposures, by rating (M€)

1	AAA/AA	6,572
2	A	5,156
3	BBB	14,652
4	BB	2,001
5	B	1,137
6	Others	307
7	No assigned rating/scoring	3,106

C.7.8B€

Reduction of total NPAs



● Solvia Desarrollos Inmobiliarios

● Pro forma the institutional sales of problematic assets announced in 2Q18 and reclassified as non-current assets available for sale

G12 Total NPAs, excl. TSB (M€)

Note: Includes contingent risks.

1 Sabadell's NPLs, foreclosed assets and NPAs (excl. TSB) include 20% of the non-performing exposure covered by the APS. This risk is borne by Banco Sabadell under the APS protocol.

Concentration risk

Concentration risk refers to the level of credit exposure to a set of economic groups which, because of their materiality, could generate significant credit losses in the event of an adverse economic situation. Exposures can be concentrated within a single customer or economic group, or at sector or geography level.

Concentration risk can be caused by two risk subtypes:
— Individual concentration risk: this refers to the possibility of incurring significant credit losses as a result of maintaining large exposures with specific customers.
— Sectoral concentration risk: imperfect diversification of the systemic components of portfolio risk, which can be sector-based, geographical, etc.

Banco Sabadell has a series of specific tools and policies to ensure efficient management of concentration risk:
— Quantitative metrics from the Risk Appetite Statement and their subsequent monitoring, as tier-one metrics.
— Individual limits for risks and customers considered to be significant, which are established by the Executive Committee.
— A structure of conferred powers which requires transactions with significant customers to be approved by the Credit Operations Committee, or even by the Executive Committee.

In order to control its concentration risk, the Banco Sabadell Group has deployed the following critical control parameters:

Consistency with the Risk Appetite Framework
The Group guarantees the consistency between the concentration of its risk exposures and the tolerance to such risks, as defined in the RAS. There are overall limits to risk concentration and appropriate internal controls to ensure that the concentration of these risk exposures does not exceed the risk appetite levels established by the Group.

Establishment of limits and metrics
For controlling concentration risk Given the nature of the Group's activity and its business model, concentration risk is primarily linked to credit risk, and various metrics and associated limits are in place.

Credit risk exposure limits are based on the institution's historical loss experience, seeking to ensure that exposures are in line with the Group's capitalisation as well as the expected returns under different scenarios.

All of the metrics used to measure such levels, as well as appetite limits and tolerance thresholds for the identified risks, are described in the RAS metrics.

Risk control monitoring and regular reporting
The Banco Sabadell Group ensures that concentration risk is monitored on a regular basis in order to enable any weaknesses in the mechanisms implemented to manage this risk to be identified and resolved quickly. This information is also reported to the Board of Directors on a recurring basis in accordance with the established risk governance.

Action plans and mitigation techniques
The approach to dealing with exceptions to internally established limits must set out the criteria for granting such exceptions.

Where necessary, the Group will take the appropriate measures to match the concentration risk to the levels approved in the RAS by the Board of Directors.

Exposure to customers or significant risks

At 31 December 2018 there were no borrowers with a risk that individually exceeded 10% of the Group's equity.

Country risk: geographic exposure to credit risk

Country risk is that applicable to the debts of a country, taken as a whole, for reasons inherent in the country's sovereignty and economic situation, i.e. for circumstances other than normal credit risk. It manifests itself in a debtor's potential inability to honour their foreign currency payment obligations to external creditors due, among other reasons, to the country preventing access to the foreign currency, the inability to transfer it, or the non-enforceability of legal action against borrowers for reasons of sovereignty, war, expropriation or nationalisation.

Country risk affects not only debts contracted with a State or entities guaranteed by it but also all private debtors that belong to such a State and who, for reasons outside their control and not at their volition, are generally unable to honour debts.

An exposure limit is set for each country which is applicable across the whole Banco Sabadell Group. These limits are approved by the Executive Committee and the corresponding decision-making bodies, depending on the level of delegation, and are constantly monitored to ensure that any deterioration in the political, economic or social situation in a country can be detected in good time.

The principal component of the framework for the acceptance of country risk and financial institution risk is the structure of limits on the various metrics; on this basis, the various risks are monitored and senior management and the Board sub-committees establish the Group's risk appetite on this basis.

The limits are structured in two Tiers: Tier 1 metrics in the RAS, and Tier 2 (or "management") limits.

Additionally, a number of indicators and tools are used to manage country risk: credit ratings, credit default swaps, macroeconomic indicators, etc.

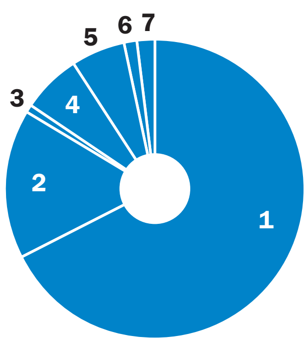
The breakdown of risk concentration by activity and worldwide in 2018 is shown in table 2.

The breakdown, by type of financial instrument, of the exposure to sovereign risk at 31 December 2018, applying the criteria required by the European Banking Authority (EBA), is shown in figures G13, G14 and G15.

T2 Breakdown of risk concentration by activity

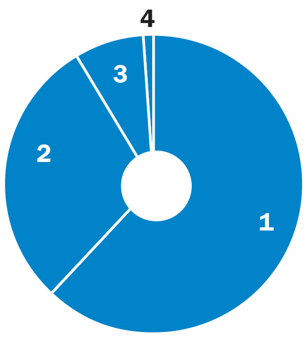
€M

	2018				
	Total	**Spain**	**Rest of European Union**	**America**	**Rest of the world**
Central banks and credit institutions	**32,994.69**	**16,025.19**	**15,610.80**	**1,040.38**	**318.32**
Public authorities	**35,006.76**	**23,278.57**	**10,544.89**	**1,084.24**	**99.06**
Central government	8,425.79	8,368.77	0.01	0.01	57.01
Others	26,580.97	14,909.80	10,544.89	1,084.23	42.05
Other financial companies and sole proprietors	**4,224.63**	**2,315.02**	**1,326.27**	**546.35**	**36.99**
Non-financial companies and sole proprietors	**60,687.19**	**48,152.72**	**4,327.53**	**7,530.60**	**676.34**
Construction and real estate development	3,519.28	3,203.25	32.23	199.75	84.06
Civil engineering	985.36	939.40	35.51	8.22	2.24
Other	56,182.54	44,010.08	4,259.79	7,322.64	590.04
Large corporates	25,240.55	14,585.54	3,425.98	6,863.02	366.02
SMEs and sole proprietors	30,942.00	29,424.54	833.82	459.62	224.02
Other households	**72,533.04**	**35,540.68**	**35,569.47**	**509.52**	**913.38**
Home loans	62,803.73	28,247.03	33,202.05	491.90	862.75
Consumer loans	7,459.33	5,487.62	1,932.43	8.94	30.34
Other	2,269.99	1,806.03	434.99	8.68	20.29
Total	**205,446.32**	**125,312.18**	**67,378.97**	**10,711.08**	**2,044.08**



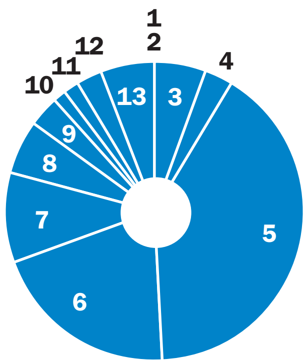
G13 Breakdown of sovereign risk exposure (%)

1	Spain	67.6
2	Italy	16.1
3	USA	1.0
4	United Kingdom	6.4
5	Portugal	5.6
6	Mexico	1.6
7	Rest of the world	1.7



G14 Breakdown of counterparty risk (%) **(by geography)**

1	Eurozone	62.1
2	Rest of Europe	29.4
3	USA and Canada	7.5
4	Rest of the world	1.0



G15 Breakdown of counterparty risk, by rating (%)

1	AAA / Aaa	0.0
2	AA+ / Aa1	0.0
3	AA / Aa2	5.7
4	AA- / Aa3	3.1
5	A+ / A1	40.5
6	A / A2	20.3
7	A- / A3	9.8
8	BBB+ / Baa1	5.7
9	BBB / Baa2	3.3
10	BBB- / Baa3	1.4
11	BB+ / Ba1	1.7
12	BB / Ba2	2.8
13	Others	5.7

Counterparty risk

This heading refers to credit risk arising from activities in financial markets that are carried out via specific trades with counterparty risk. Counterparty risk arises in the event where, in a transaction involving derivatives or repos with deferred settlement or on margin, the counterparty defaults before the final settlement of the transaction cash flows.

Exposure to counterparty risk is concentrated in customers, financial institutions and clearing houses.

The risk is concentrated in counterparties with high credit quality: 79% of the exposure is to counterparties rated A or higher.

In June 2016, the European Market Infrastructure Regulation (EMIR — Regulation 648/2012) made it obligatory for the Group to clear and settle certain over-the-counter (OTC) derivatives through Central Counterparties (CCPs). Consequently, the derivatives arranged by the Group that are susceptible to being cleared through a CCP are cleared in this way. At the same time, the Group has worked to standardise OTC derivatives with a view to increasing the use of CCPs. The exposure to CCPs depends mainly on the amount of the guarantees provided.

With regard to derivative transactions in organised markets (OMs), it is considered, based on management criteria, that there is no exposure, given that there is no risk as the OMs act as counterparties in the transactions and a daily settlement and margin mechanism is in place to ensure the transparency and continuity of the activity. Exposure to OMs is equivalent to the guarantees provided.

The philosophy behind counterparty credit risk management is consistent with the business strategy, and seeks to ensure the creation of value at all times while maintaining a balance between return and risk. For this purpose, criteria have been established for supervising and tracking counterparty risk deriving from activity in the financial markets so as to ensure that the Bank can carry out its business activity within the risk thresholds established by senior management.

Counterparty risk exposure is quantified on the basis of current and future exposure. Current exposure represents the cost of replacing a transaction at market value in the event that a counterparty defaults at the present time. To calculate this, it is necessary to mark the transaction to market (MtM). The future exposure represents the risk that a transaction could potentially represent over a certain period of time, given the characteristics of the transaction and the market variables on which it depends. In the case of transactions carried out under a collateral agreement, the future exposure represents the possible fluctuation of the MtM between the time of default and the replacement of such transactions in the market. If the transaction is not carried out under a collateral agreement, it represents the possible fluctuation of MtM throughout the term of the operation.

Each day at close of business all of the exposures are recalculated in accordance with the transaction inflows and outflows, changes in market variables and risk mitigation techniques established by the Group. In this way, exposures are monitored on a daily basis to ensure that they conform to the limits approved by senior management. This information is included in risk reports for disclosure to the departments and units responsible for management and monitoring them.

With regard to counterparty risk, the Group adopts a number of mitigation measures. The main measures are:

— Netting agreements for derivatives (ISDA and CMOF).
— Collateral agreements for derivatives (CSA and Schedule 3 - EMA), repos (GMRA, EMA) and securities lending (GMSLA).

Netting agreements allow positive and negative MtM to be aggregated in transactions with the same counterparty in such a way that, in the event of default, a single payment or collection obligation is established in relation to all of the transactions arranged with that counterparty.

By default, the Group has netting agreements with all of the counterparties that wish to trade in derivatives.

Collateral agreements provide not just for netting but also for the regular exchange of guarantees that mitigate the exposure to a counterparty in respect of the operations covered by the agreement.

The Group requires that a collateral agreement be in place in order to trade in derivatives or repos with financial institutions. Furthermore, pursuant to Delegated Regulation (EU) 2251/2016, for derivative transactions with such institutions, the Group is required to exchange collateral with financial counterparties in order to mitigate the current exposure. The Group's standard collateral agreement, which complies with the aforementioned regulation, is bilateral (i.e. both parties are obliged to deposit collateral) and includes a daily exchange of guarantees in the form of cash in euro.

Assets pledged in financing activities

At the end of 2018, there were certain financial assets pledged in financing operations, i.e. offered as collateral or guarantees for certain liabilities. Those assets are mainly loans linked to the issuance of long-term mortgage covered bonds, public-sector covered bonds and asset-backed securities (see Note 20 and Schedule III to the 2018 consolidated financial statements, for transactions in connection with the Spanish mortgage market, and Schedule IV for details of issues). The other pledged assets are debt securities that are delivered in repos, collateral (loans or debt instruments) provided to gain access to certain types of funding from central banks and collateral of all types provided as surety for derivatives transactions.

The Group has used part of its portfolio of homogeneous loans and advances in fixed-income securities by transferring the assets to securitisation trusts created for this purpose. Under current regulations, securitised assets cannot be derecognised unless the risk has been substantially transferred.

Assets and liabilities held in securitisation trusts set up after 1 January 2004 and whose associated risks and rewards were not transferred to third parties have been retained in the consolidated financial statements. In the case of those assets, the risk is not transferred as some form of subordinated loan or credit enhancement has been granted to the securitisation trusts. At 31 December 2018, there was no significant financial aid from the Group for unconsolidated securitisations.

The Other transferred financial assets fully derecognised from the balance sheet heading included mainly assets transferred to SAREB (Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria) by Banco Gallego, as they continue to be managed by the institution. These assets amount to €621,627 thousand.

For further information on funding programmes in capital markets, refer to the section below on liquidity risk.

Liquidity risk

Liquidity risk arises due to the possibility of losses being incurred as a result of the Bank being unable, albeit temporarily, to honour payment commitments due to a lack of liquid assets, or of it being unable to access the markets to refinance debts at a reasonable cost. This may be associated with factors of a systemic nature or specific to the bank itself.

In this regard, the objective of the Banco Sabadell Group is to maintain liquid assets and a funding structure that, in line with its strategic objectives and based on its risk appetite statement, enable it to honour its payment commitments normally and at a reasonable cost, under business as usual conditions or under a stress situation caused by systemic or idiosyncratic factors.

The governance structure for Banco Sabadell's liquidity management and control is based on the direct involvement of the governing and management bodies and senior management, the three lines of defence, a strict separation of functions, and a clear structure of responsibilities.

Liquidity management

Banco Sabadell's liquidity management policy seeks to ensure that its lending can be financed at an appropriate cost and within an appropriate time so that liquidity risk is kept to a minimum. The bank's funding policy is focused on maintaining a balanced funding structure, based mainly on customer deposits, supplemented with access to wholesale markets that enables the Group to maintain a comfortable liquidity position at all times.

In order to manage its liquidity, the Group applies a structure based on Liquidity Management Units (LMU). Each LMU is responsible for managing its own liquidity and for setting its own metrics to control liquidity risk, in coordination with the Group's corporate functions. At present, the LMUs are Banco Sabadell (includes foreign branches, as well as Mexican subsidiaries Banco Sabadell S.A., I.B.M. and Sabcapital S.A. de C.V., SOFOM, E.R.), BancSabadell d'Andorra (BSA) and TSB.

In order to achieve the objectives, the Group's current liquidity risk management strategy is based on the following principles and pillars, in line with the LMUs' retail business model and the defined strategic objectives:

— Involvement of the Board of Directors and senior management in managing and controlling liquidity risk and funding.
— Clear segregation of functions between the different areas within the organisation, with a clear delimitation of the three lines of defence, to ensure independence when measuring positions and when controlling and assessing risks.
— Decentralised liquidity management system for the more significant units but with a centralised risk oversight and management system.
— Sound identification, measurement, management, control and reporting processes with respect to the liquidity and funding risks to which the Group is exposed.
— Existence of a transfer price system to transfer funding costs.
— A balanced funding structure based primarily on customer deposits.
— A broad base of unencumbered liquid assets that can be accessed immediately to generate liquidity and which comprises the Group's first line of defence.
— Diversification of funding sources, with controlled recourse to short-term wholesale funding and without depending on any specific funding provider.
— Self-funding of significant foreign banking subsidiaries.
— Monitoring of the amount of the balance sheet being used as collateral in funding transactions.
— Maintenance of a second line of liquidity consisting of the capacity to issue mortgage covered bonds and public-sector covered bonds.
— Compliance with regulatory requirements, recommendations and guidelines.
— Regular public disclosure of information relating to liquidity risk.
— Availability of a Liquidity Contingency Plan.

Tools/metrics for monitoring and managing liquidity risk

Banco Sabadell Group has a system of metrics and tolerance limits that define its liquidity risk appetite, set out in the Risk Appetite Statement (RAS) and approved by the Board of Directors. The system enables liquidity risk to be assessed and monitored, ensuring the achievement of strategic objectives, adherence to the risk profile, and compliance with the regulations and supervisory guidelines. Some liquidity metrics are set at Group level and calculated on a consolidated basis, others are set at Group level but deployed to the LMUs, and others are set at LMU level to reflect specific local characteristics.

Both the metrics defined in the Banco Sabadell Group RAS and those defined in subsidiaries' local RAS are subject to governance relating to the approval, monitoring, reporting of breaches and remediation plans established in the Risk Appetite Framework (RAF) on the basis of the hierarchical level of each metric (classified into three levels).

The Group has designed and implemented a system of early warning indicators (EWIs) at the LMU level, which includes market and liquidity indicators adapted to the funding structure and each LMU's business model. Implementation of these metrics at LMU level complements the RAS metrics and enables local threats to the liquidity position and funding structure to be detected in advance, which facilitates decision-making and the implementation of corrective actions and reduces the risk of spillover to other LMUs.

Additionally, each LMU's risk is monitored daily through the Structural Treasury Report, which measures the daily changes in the balance sheet funding needs, the daily changes in the outstanding balance of transactions in capital markets, and the daily changes in the first line of liquidity maintained by each LMU.

The reporting and control framework involves, among other aspects:

— Monitoring the RAS metrics and the associated thresholds at consolidated and LMU level with the frequency established for each metric.
— Reporting to the relevant committees and governing and management bodies on the basis of the metric's hierarchical level.
— In the event a breach is detected, activating the communication protocols and the necessary plans to resolve it.

Within the Group's overall budgeting process, Banco Sabadell plans its liquidity and funding requirements over different time horizons that are aligned with the Group's strategic objectives and risk appetite. Each LMU has a 1- and 3-year funding plan setting out its potential funding needs and the strategy for addressing them, and they regularly analyse fulfilment of the latter and deviations from the budget and its suitability to the market environment.

The institution also has an internal funds transfer pricing system for transferring funding costs to the business units.

Banco Sabadell also has a Liquidity Contingency Plan (LCP) that sets out the strategy for ensuring that the institution has sufficient management capacities and measures in place to limit any negative impacts of a crisis situation affecting its liquidity position and to enable it to regain a business-as-usual situation. The LCP also aims to facilitate operational continuity in liquidity management, particularly in the event of a crisis due to deficient performance of one or more market infrastructures. The LCP can be triggered in response to a number crisis scenarios, either in the markets or in the institution itself. The key components of the LCP include: measures to generate liquidity in business-as-usual situations or in a crisis situation that triggers the LCP, and a communication plan (both internal and external) for the LCP.

Funding strategy and liquidity trends

The Group's main source of funding is customer deposits (mainly demand accounts and deposits with agreed maturity captured through the branch network), supplemented by funding through the interbank and capital markets in which the entity maintains a number of short- and long-term funding programmes in order to achieve an appropriate level of diversification in terms of product, term and investor. The institution also maintains a diversified portfolio of liquid assets, most of which are eligible as collateral for European Central Bank funding transactions.

On-balance sheet customer funds

At 31 December 2018, customer funds on the balance sheet amounted to €137,343 million, 4.0% more than at 2017 year-end (€132,096 million) and 3.0% more than at 2016 year-end (€133,457 million). The downward trend in interest rates in the financial markets triggered a shift in the composition of customer funds from deposits with agreed maturities to demand accounts and off-balance sheet funds. At 31 December 2018, the balance of demand accounts had increased by 9.8% to €107,665 million, whereas deposits with agreed maturities had declined by 10.8% (T3).*

T3 On-balance sheet customer funds, by maturity

€M

	2018	3 months	6 months	12 months	>12 months	No fixed maturity
Total on-balance sheet customer funds (*)	**137,343**	**7.3%**	**4.3%**	**7.4%**	**2.6%**	**78.4%**
Deposits with agreed maturity	26,593	32.9%	18.7%	37.3%	11.1%	—
Demand accounts	107,665	—	—	—	—	100.0%
Retail issues	3,085	42.3%	31.1%	5.5%	21.2%	—

(*) Includes customer deposits (ex-repos) and other liabilities placed via the branch network: mandatory convertible bonds, non-convertible bonds issued by Banco Sabadell, commercial paper and others.

T4 Key figures and basic liquidity ratios

€M

	Excl. TSB 2017	ExTSB 2018	Group total 2017	Group total 2018
Gross loans and advances to customers, excluding repos	109,742	111,673	145,323	145,824
NPL and country-risk provisions	(3,646)	(3,211)	(3,727)	(3,433)
Brokered loans	(3,110)	(2,426)	(3,835)	(2,808)
Adjusted net loans and advances	**102,986**	**106,036**	**137,761**	**139,583**
On-balance sheet customer funds	97,686	104,859	132,096	137,343
Loan to deposits ratio (%)	**105.4**	**101.1**	**104.3**	**101.6**

T5 Maturity of issues aimed at institutional investors, by product type

€M

	2019	2020	2021	2022	2023	2024	>2024	Outstanding balance
Mortgage-backed bonds and mortgage covered bonds (*)	1,124	2,015	1,808	1,678	1,388	1,850	2,301	12,165
Senior debt (**)	52	—	—	25	984	744	—	1,805
Subordinated debt and preference shares (**)	—	411	430	—	500	—	1,660	3,001
Other medium- and long-term financial instruments (**)	—	—	10	—	—	4	—	14
Total	**1,176**	**2,426**	**2,249**	**1,703**	**2,872**	**2,598**	**3,961**	**16,985**

(*) Collateralised
(**) Uncollateralised

*** For further details of off-balance sheet customer funds managed by the Group and those marketed but not managed by the Group, see note 27 to the 2018 consolidated financial statements.**

The Group's deposits are sold through the following Group business units/companies (Commercial Banking, Corporate Banking and Global Businesses, Private Banking and TSB).

The funding gap continued to rise in 2018, in line with the previous year's trend. This enabled the Group to maintain its policy of partially refinancing maturities in the capital markets and, at the same time, to continue reducing its loan-to-deposit (LtD) ratio (from 147% at the end of 2010 to 101.6% at the end of 2018) (T4).

Capital markets

Recourse to funding in the capital markets has been declining in recent years as a consequence of the positive trend in the funding gap, among other factors. At the end of 2018, the outstanding balance of capital market funding stood at €21,719 million, compared with €22,390 million at the end of 2017. As of 2018 year-end, of the amount of capital market funding, €12,165 million were in the form of mortgage covered bonds, €2,353 million were commercial paper and ECP placed with wholesale investors, €1,805 million were senior debt, €3,001 million were subordinated debt and preference shares, €2,381 million were asset-backed securities placed in the market (of which €698 million correspond to TSB), and €14 million were other medium- and long-term financial instruments (T5, G16 & G17). The Banco Sabadell Group is an active participant in the capital markets and has a number of active funding programmes with a view to diversifying its sources of liquidity.

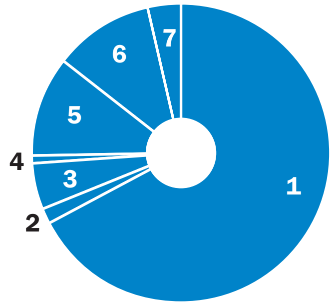
In terms of short-term financing, the institution maintains a commercial paper programme and a Euro Commercial Paper (ECP) programme:

— Corporate commercial paper programme: this programme regulates issues of commercial paper aimed at institutional and retail investors. On 15 March 2018, Banco Sabadell registered its commercial paper programme for 2018 with the CNMV (Spanish Securities Market Commission), with an issue limit of €7 billion, eligible to be extended up to €9 billion. The outstanding balance of the commercial paper programme declined as the year advanced. At 31 December 2018, the outstanding balance stood at €2,565 million (net of commercial paper acquired by Group undertakings), compared with €2,823 million at 31 December 2017.

— Euro Commercial Paper (ECP) Programme, aimed at institutional investors, under which short-term securities are issued in several currencies: EUR, USD and GBP. On 18 December 2015, Banco Sabadell renewed its Euro Commercial Paper Programme for a maximum nominal amount of €3,500 million. At 31 December 2018, the outstanding balance of the programme stood at €696 million, up from €346 million at the end of 2017.

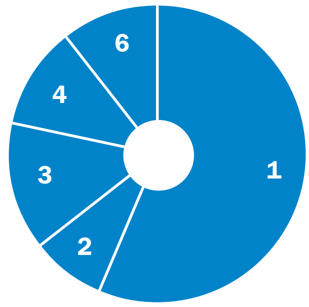
The institution has the following medium- and long-term funding programmes:

— Non-equity securities programme ("Fixed Income Programme") registered with the CNMV on 10 April 2018, with a maximum issue amount of €16,500 million: this programme regulates the issuance of bonds and debentures (non-convertible, subordinated and structured), and



G16 Funding structure
31.12.2018 (%)

1	Deposits	67.3
2	Retail issues	1.6
3	Repos	5.1
4	ICO funding	0.8
5	Wholesale market	10.8
6	ECB	10.8
7	Bank of England	3.6



G17 Institutional issues
31.12.2018 (%)

1	Mortgage covered bonds	56.4
2	Senior debt	8.3
3	Subordinated and AT1	13.9
4	ECP + institutional commercial paper	10.9
5	Asset-backed securities	10.5

mortgage and public-sector covered bonds issued under Spanish law through the CNMV and aimed at institutional and retail investors, both domestic and foreign. The limit available for new issues under the Banco Sabadell Non-equity securities programme for 2018 was €12,280 million at 31 December 2018 (€10,046 million under the Fixed Income Programme at 31 December 2017).
— Euro Medium Term Notes (EMTN) programme, registered with the Irish Stock Exchange on 23 March 2018, and supplemented on 27 April, 30 July and 30 October 2018. This programme allows senior debt (preferred and non-preferred) and subordinated bonds to be issued in any currency, with a maximum limit of €5,000 million. On 7 September 2018, Banco Sabadell issued €750 million of 5.5-year senior preferred debt under this programme, and on 12 December it issued €500 million of subordinated Tier 2 debt maturing in 10 years and callable in the fifth year.

With regard to asset-backed securities:
— Since 1993, the Group has been very active in this market and has taken part in various securitisation programmes, sometimes acting together with other highly solvent institutions, assigning mortgage loans, SME loans, consumer loans and debt claims deriving from finance lease contracts.
— There are currently 24 outstanding issues of asset-backed securities (including those issued by Banco Guipuzcoano, Banco CAM, BMN, Banco Gallego and TSB). Although some of the bonds were retained as liquid assets eligible as collateral for European Central Bank funding transactions, the remainder of the bonds were placed in the market. At the end of 2018, the balance of asset-backed securities placed in the market stood at €2,381 million.
— In the first quarter, Banco Sabadell sold a total of €455 million from tranche A of the IM Sabadell PYME 11 asset-backed issue to the EIB to fund two new lines.
— For efficiency reasons, three asset-backed transactions were redeemed early in 2018 (for more details on securitisation trusts, see Schedule II to the 2018 consolidated financial statements).

The markets were very volatile in 2018, mainly as a result of geopolitical uncertainty, which translated into a significant widening of credit spreads and the closure of the markets for relatively long periods of time on a number of occasions during the year.

In March 2016, the European Central Bank announced economic stimulus measures through a new targeted long-term refinancing operation (TLTRO II), consisting of four auctions of liquidity at a term of four years, to be performed between June 2016 and March 2017. Banco Sabadell took part in TLTRO II, for a total of €20,500 million (€10,000 in the first auction, in June 2016, and €10,500 in the last auction, in March 2017).

In 2016, the Bank of England also implemented a series of measures to support economic growth. They included the Term Funding Scheme (TFS), designed to incentivise lending, which was implemented in August 2016, against which UK banks could borrow for a 4-year term against eligible collateral. As a member of the Sterling Monetary Framework (SMF), TSB made use of the TFS throughout 2017, drawing €6,334 million, and also in February 2018, with an additional drawdown of €958 million. As a result, the amount drawn under this scheme amounted to €7,233 million at the end of 2018.

Liquid assets

In addition to these funding sources, the Group maintains a liquidity buffer in the form of liquid assets with which to meet potential liquidity needs (T6).

With respect to 2017, the Group's first line of liquidity increased by €3,790 million, mainly due to the generation of a customer funding gap and to collateral management.

T6 Available liquid assets

€M

	2018
Cash (*) + Net interbank position	18,229
Available under Bank of Spain facility	4,081
Collateral provided under facility (**)	25,760
Balance drawn under Bank of Spain facility (***)	21,548
Assets eligible as collateral for ECB facility not yet used	12,468
Other marketable assets ineligible for ECB facility (****)	2,177
Pro memoria: Balance drawn under Bank of England Term Funding Scheme	7,233
Total available liquid assets	**36,955**

(*) Excess reserves at central banks.
(**) Market value after applying ECB haircut for monetary policy transactions.
(***) Includes TLTRO-II and weekly balance of 1,200 M€ drawn against ECB.
(****) Market value after applying the Liquidity Coverage Ratio (LCR) haircut. Includes fixed-income securities classified as high-quality liquid assets (HQLA) for the purposes of the LCR and other marketable securities of Group undertakings.

The balance of central bank reserves and the net interbank position declined by €4,132 million in 2018, mainly due to a reduction in repo funding in the year. The bank also has €7,143 million of liquid assets that are eligible for the European Central Bank, while the volume of available assets that are not ECB-eligible increased by €779 million.

As for TSB, the first line of liquidity at 31 December 2018 was mainly comprised of gilts amounting to €1,372 million (€761 million at 31 December 2017) and surplus reserves at the Bank of England (BoE) amounting to €7,703 million (€8,286 million at 31 December 2016), mostly from draws on the TFS.

The Group applies a decentralised liquidity management model. This model tends to limit the transfer of liquidity between the subsidiaries involved in liquidity management, thereby limiting intra-group exposures beyond any restrictions imposed by local regulators on each subsidiary. As a result, the subsidiaries involved in liquidity management determine their liquidity position by considering only those assets in their possession which meet the eligibility, availability and liquidity requirements established both internally and by regulation in order to comply with the regulatory minima.

There are no significant amounts of cash and cash equivalents which are not available for use by the Group. In addition to the first line of liquidity, the bank maintains a buffer of mortgage assets and loans to public authorities that are eligible as collateral for mortgage covered bonds and public-sector covered bonds, respectively, which, at the end of 2018, added €2,320 million in terms of the capacity to issue new covered bonds that are eligible as collateral for the ECB facility, after net issuance of €1,626 million of mortgage covered bonds and €300 million in public-sector covered bonds in the year. At the end of 2018, available liquidity amounted to €39,275 million in cash, corresponding to the amount of the first line of liquidity plus the bank's capacity at the end of December to issue mortgage and public-sector covered bonds bonds.

Fulfilment of regulatory ratios

As part of its liquidity management approach, the Banco Sabadell Group monitors the short-term liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR), and reports the necessary information to the regulator on a monthly and quarterly basis, respectively. The measurement of liquidity based on these metrics forms part of the liquidity risk control in the LMUs as a whole.

At 1 January 2018, the minimum LCR required by the regulator is 100%, which is amply surpassed by all of the institution's LMUs. At Group level, the LCR remained well above 100% consistently throughout the year. At the end of December 2018, the LCR stood at 168% for the Group (excl. TSB) and at 298% at TSB.

The NSFR is still undergoing evaluation and has yet to be finalised, even though it was scheduled to be introduced in January 2018. The bank has nonetheless already commenced tracking this ratio as a liquidity metric at the LMU level.

Given the Group's funding structure, with a preponderance of customer deposits, and as the majority of its market funding is medium/long-term, this ratio is consistently well over 100%.

Market risk

This risk is defined as arising from the possibility of loss in the market value of financial asset positions due to variations in risk factors with an impact on their market prices or volatility or the correlation between them.

Those positions that generate market risk are usually held in trading activities, consisting of hedging transactions arranged by the Bank to provide services to its customers as well as discretionary proprietary positions.

They may also arise simply from maintaining overall balance sheet positions (structural positions) that are open in net terms. In the latter case, the institution uses the market risk management and monitoring system to manage the structural market risk position.

Trading activity

The main market risk factors considered by the Group in its trading activity are:

— Interest rate risk: risk associated with the possibility of fluctuations in interest rates adversely affecting the value of a financial instrument. This is reflected, for example, in interbank deposit operations, fixed-income securities and interest rate derivatives.

— Credit spread risk: this risk derives from the fluctuations in the credit spreads at which instruments are quoted with respect to other benchmark instruments, such as interbank interest rates. This risk occurs mainly in fixed-income instruments.

T7 VaR

€M

	2018		
	Mean	Maximum	Minimum
Interest rate risk	2.35	26.73	0.41
Exchange rate risk in trading position	0.11	0.27	0.04
Equities	0.59	1.59	0.29
Credit spread	0.15	0.61	0.07
Aggregated VaR	**3.19**	**27.46**	**0.97**

— Exchange rate risk: risk associated with the fluctuation in exchange rates with respect to the reference currency. In the case of Banco Sabadell, the reference currency is the euro. This risk occurs mainly in currency exchange transactions and currency derivatives.
— Equity risk: risk which derives from fluctuations in the value of capital instruments (shares and indices). This risk is reflected in the market prices of the securities and their derivatives.

Changes in commodities prices did not have an impact in the year, given that the Group's exposure, both direct and in underlying assets, is marginal.

Market risk in trading activities is measured using the VaR and stressed VaR methodologies, which allow for standardisation of risks across different types of financial market transactions.

The VaR provides an estimate of the maximum potential loss posed by a position due to an adverse but normal movement of any of the identified parameters influencing market risk. This estimate is expressed in monetary terms and refers to a specific date, a specified level of confidence and a specific time horizon. A 99% confidence level is used. Due to the low complexity of the instruments and the high liquidity of the positions, a time horizon of 1 day is used.

The methodology used to calculate VaR is historical simulation. The advantages of this methodology are that it is based on the full appreciation of the transactions under recent historical scenarios, and it is not necessary to make assumptions about the distribution of market prices. The main limitation to this methodology is its reliance on historical data since, if a potential event has not materialised within the range of historical data used, it will not be reflected in the VaR information.

The reliability of the VaR methodology can be checked using backtesting techniques, which serve to verify that the VaR estimates fall within the contemplated confidence level. Back testing consists of a comparison between daily VaR and daily results. If losses exceed the level of VaR, an exception occurs. In 2018, there were no exceptions in the backtesting exercise due to the institution's low exposure in terms of its trading activity to the significant events that took place during the year, such as the decline by international stock markets in February and December, the euro's depreciation against the dollar in April, May and August, and the decline in the price of Italian bonds which began in May.

Stressed VaR is calculated in the same way as VaR but with a historical window of variations in the risk factors in stressed market conditions. This stressed situation is determined on the basis of currently outstanding transactions, and it can vary if the portfolios' risk profile changes.

The methodology used for this risk metric is historical simulation.

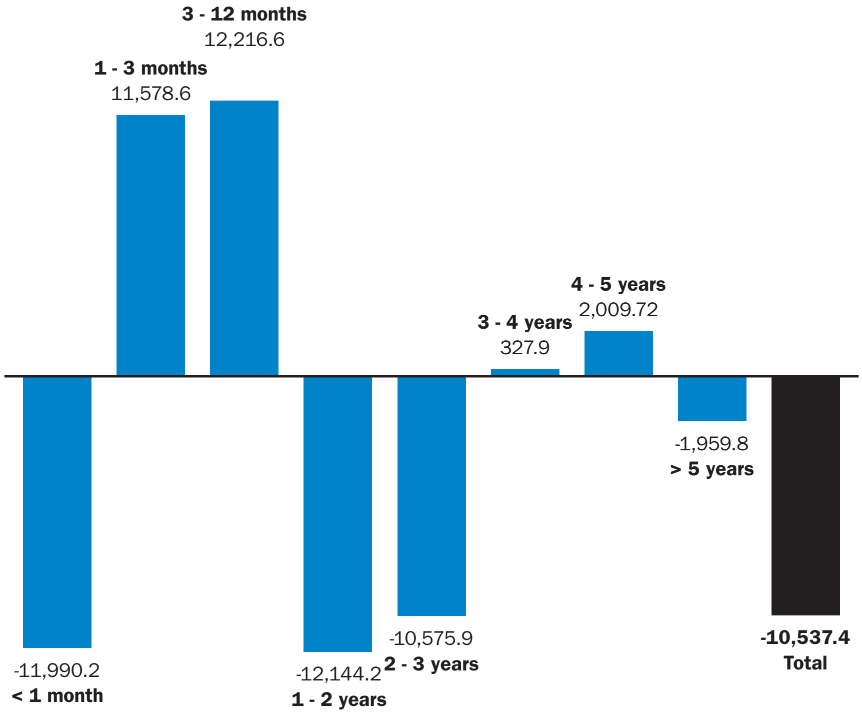
This is supplemented with additional measures such as sensitivities, which refer to the change produced in the value of a position or portfolio in response to a change in a specific risk factor, and also with the calculation of management results, used to monitor stop-loss limits.

Furthermore, specific simulation exercises are carried out with extreme market scenarios (stress testing), in which the impacts on portfolios of different past and theoretical scenarios are analysed.

Market risks are monitored on a daily basis, and risk levels and compliance with the limits established by the Risk Committee for each management unit (limits based on nominal, VaR and sensitivity, as applicable) are reported to the oversight bodies. This makes it possible to keep track of changes in exposure levels and measure the contribution by each risk factor.

Trading market risk incurred in terms of the 1-day VaR with 99% confidence is shown in table T7. The table shows the market risk associated with trading activity, initially

G18 Interest rate gap (M€)



including interest rate derivatives (swaps) under accounting hedges, which were discontinued in 2018 and 2017, between the date of discontinuation of the accounting hedge and the subsequent final cancellation of the derivative. Taking into account only trading activity excluding discontinued hedging derivatives, the average 1-day VaR with a 99% confidence interval stood at €1.73 million in 2018.

Structural interest rate and exchange rate risks

Structural interest rate risk

Structural interest rate risk (also known as Interest Rate Risk in the Banking Book, or IRRBB) is inherent to banking and is defined as the possibility of incurring losses as a result of the impact of interest rate fluctuations on the income statement (revenues and expenses) and on the equity structure (current value of assets, liabilities and off-balance sheet positions that are sensitive to interest rates).

The following are considered under structural interest rate risk:

— Repricing risk: related to a mismatch between maturity dates and repricing of assets, liabilities and short- and long-term off-balance sheet positions.
— Curve risk: arising from changes in the slope and shape of the yield curve.
— Basis risk: arising from hedging an interest rate exposure using exposure to an interest rate that is repriced in different conditions.
— Optionality risk: arising from options, including embedded options.

The metrics developed to control and monitor the Group's structural interest rate risk are aligned with market best practices and are implemented consistently across all balance sheet management units (BMUs) and by local asset and liability committees. The effect of diversification between currencies and BMUs is taken into account when presenting overall figures.

The Group's current interest rate risk management strategy relies particularly on the following principles and pillars, in line with the business model and the defined strategic objectives:

— Each BMU has appropriate tools and processes and robust systems in order to properly identify, measure, manage, control and report IRRBB. This enables them to obtain information from all of the identified sources of IRRBB, assess their effect on net interest income and the economic value of assets and measure the vulnerability of the Group/BMU to potential losses deriving from IRRBB under different stress scenarios.
— The Group establishes a set of limits for overseeing and monitoring the level of IRRBB exposure that are appropriate to its internal management policies and risk appetite. However, each BMU has the autonomy to set any other additional limits it deems necessary, based on its specific needs and the nature of its activities.
— The existence of a transfer pricing system.
— The systems, processes, metrics, limits, reporting and governance covered by the IRRBB strategy must comply with regulatory requirements.

The metrics used to monitor structural interest rate risk include, on one hand, the interest rate gap (G18), which is a static measure that shows the breakdown of maturities and repricing of sensitive items on the balance sheet. For items with no contractual maturity, expected maturities estimated using the bank's past experience are considered. To this end, a model has been defined using historical monthly data in order to reproduce customer behaviour, establishing stability and remuneration parameters in line with the type of product and the type of customer, thereby satisfying current regulatory requirements.

The sensitivity (difference between the value of implicit market rates in the baseline scenario and in the stressed scenario) of the various key economic figures is calculated:

T8 Sensitivity to interest rate risk, by currency

%

	Instantaneous parallel increase of 100bp	
Interest rate sensitivity	**Impact on net interest income**	**Impact on economic value**
EUR	2.6%	(3.8%)
GBP	2.3%	0.2%
USD	0.1%	(0.5%)

T9 Two-year sensitivity

%

	Instantaneous parallel increase of 100bp	
Impact on net interest income in the second year	**High pass-through**	**Average pass-through**
Global	7.9%	12.1%
Of which EUR	4.2%	6.9%
Of which GBP	3.4%	4.6%

net interest income margin (difference between accrued interest receivable and payable) and the economic value (sum of the net present value of cash flows from assets, liabilities and off-balance sheet exposures that form part of the banking book) in the event of changes in the interest rate curve. Table T8 shows the interest rate risk levels in terms of the sensitivity of the Group's main foreign currencies at the end of 2018 to the yield scenarios most commonly used in the industry.

In addition to the impact on net interest income within one year, presented in table T8, the Group calculates the impact on net interest income over two years, the result of which is notably more positive for all currencies. In particular, the sensitivity of net interest income in the second year considering the group's main currencies, with a high pass-through rate (i.e. where the bulk of any increase in reference interest rates is transferred to deposits with agreed maturity and remunerated sight accounts), is 7.9%, while a medium pass-through would put it at 12.1% (T9).

Given the current level of market interest rates, in the scenario of a decline in interest rates, for the points of the curve in which rates are positive, a maximum shift of 100 basis points is applied in each term, so that the resulting interest rate is always greater than or equal to zero. No shift is applied at the points of the curve in which rates are negative.

Derivatives are arranged in the financial markets to hedge risks, mainly interest rate swaps (IRS), which qualify for hedge accounting. Two different forms of macro-hedging are used:

— Interest rate macro-hedging of cash flows, the purpose of which is to reduce the volatility of net interest income in the event of interest rate fluctuations, for a one-year time horizon.
— Fair value interest rate macro-hedges, whose purpose is to maintain the economic value of the hedged items, consisting of assets and liabilities at fixed interest rates.

As part of the continuous improvement process, Banco Sabadell implements structural interest rate risk management and monitoring activities and updates them regularly, aligning the institution with best market practices and current regulations.

Structural exchange rate risk

This risk arises from changes in the market exchange rates between currencies, which may generate losses in financial investments or in permanent investments in overseas offices and subsidiaries that use currencies other than the euro.

The purpose of managing structural exchange rate risk is to minimise the impact of adverse movements in currency markets on the value of the portfolio and the entity's equity. The foregoing takes into account the potential impacts on the capital (CET1) ratio and on net interest income, subject to the risk appetite defined in the RAS, and the established levels for the risk metrics must be complied with at all times.

Exchange rate risk is monitored regularly and reports on current risk levels and on compliance with the established limits are sent to the risk control bodies. The main metric is currency exposure (as a percentage of Tier 1), which measures the sum of the institution's net open interest (assets less liabilities) in each currency through any type of financial instrument (FX spot, forward and option transactions), measured in euro and in relation to Tier 1.

Compliance with and the effectiveness of the Group's targets and policies are monitored and reported on a monthly basis to the Risk Committee and to the Audit and Control Committee, respectively.

The Bank's Financial Department, through the ALCO, designs and implements strategies for hedging the structural position in foreign currency with the objective of managing structural exchange rate risk.

As regards permanent investments in US dollars, the structural position in this currency went from USD 442 million at 31 December 2017 to USD 968 million at 31 December 2018.

As for permanent investments in Mexican pesos, given the uncertainty surrounding the new government (increasing market volatility linked to the perceived increase in political risk), balances deriving from the business in Mexico are monitored, as is the EUR/MXN currency pair, in order to hedge over 70% of the total exposure in this currency. As a result, the capital buffer rose from MXN 7,474 million at 31 December 2017 (out of total exposure of MXN 10,566 million) to MXN 11,050 million at 31 December 2018 (out of total exposure of MXN 14,703 million) (see Note 12 to the 2018 consolidated financial statements).

As for the structural position in pounds sterling, in a context of political instability in the United Kingdom, Banco de Sabadell, S.A. closely monitors changes in the EUR/GBP exchange rate on an ongoing basis. The Group has been implementing a hedging policy that seeks to mitigate any negative effects on capital ratios, and on earnings generated by its business in GBP, that might arise as a result of fluctuations in the EUR/GBP exchange rate. The bank maintains an economic hedge of expected profits and flows in GBP from its subsidiaries.

Taking into account the potential impact of Brexit (see note 4 to the 2018 financial statements), adjustments were made to the capital buffer in 2018, which rose from GBP 1,268 million at 31 December 2017 to GBP 1,368 million at 31 December 2018, representing 75% of the total investment (excluding intangibles) (see note 12 to the 2018 consolidated financial statements).

Currency hedges are continuously monitored in light of market fluctuations.

The value in euro of the assets and liabilities denominated in foreign currencies held by the group at 31 December 2018, classified on the basis of their nature, is shown in figure G19.

The net position of foreign currency assets and liabilities includes the institution's structural position, valued at the exchange rates at the end of the month in question, which amounted to €1,857.2 million, of which €809.6 million corresponded to permanent shareholdings in

GBP, €783.2 million to permanent shareholdings in USD, €223.6 million to permanent shareholdings in MXN and €40.2 million to permanent shareholdings in MAD. Net assets and liabilities are hedged with forward transactions and options denominated in foreign currencies in line with the Group's risk management policy.

At 31 December 2018, the equity exposure sensitivity to a 2.6% depreciation against the euro of the main currencies to which the bank is exposed amounted to €39 million, of which 32% corresponds to the pound sterling, 54% to the US dollar and 11% to the Mexican peso. This potential depreciation is in line with historical quarterly volatility in recent years.

Operational risk

Operational risk is defined as the risk of incurring losses due to deficiencies or failures on the part of internal processes, people or systems or due to unexpected external events. This definition includes reputational, behavioural, technology, model and outsourcing risks.

Management of operational risk is decentralised and devolved to process managers throughout the organisation. The processes that they manage are indicated in the corporate process flowchart, which facilitates the integration of data throughout the organisation. The Group has a specialized central unit to manage operational risk whose main functions are to coordinate, supervise and promote the identification, assessment and management of risks by process managers in line with the Banco Sabadell Group's risk management approach.

Senior management and the Board of Directors are directly involved and effectively take part in managing this risk by approving the management framework and its implementation as proposed by the Operational Risk Committee. The latter is formed of Senior Management members from different functional areas within the institution. Managing this risk also requires regular audits to be carried out of the application of the management framework and the reliability of the information provided, as well as internal validation tests of the operational risk model. Operational risk management is based on two lines of action.

The first line of action is based on the analysis of processes, the identification of risks associated with such processes that may result in losses, and a qualitative assessment of the risks and the associated controls. The foregoing are carried out jointly between process managers and the central operational risk unit. This provides an assessment which lets the entity know its future exposure to the risk in terms of expected and unexpected loss, and also allows trends to be projected and mitigating actions to be targeted appropriately.

This is complemented by the identification, monitoring and active management of the risk through the use of key risk indicators, resulting in alerts that are triggered by any increase in this exposure, the identification of the causes of such an increase, and measurement of the efficacy of the controls and of any improvements.

At the same time, business continuity plans are designed and implemented for any processes identified as being of high criticality in the event of outage. A qualitative estimate is made of the reputational impact that the identified risks might cause in the event of their occurrence.

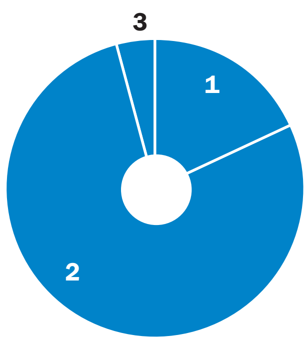
The second line of action is based on experience. It consists of recording all losses incurred by the institution in a database, which provides information about operational risks encountered by each line of business as well as their causes, so that action may be taken to minimise them.

Additionally, this information makes it possible to cross-check the estimates of potential losses with actual losses, in terms of both frequency and severity, iteratively improving the estimates of exposure levels (G20 & G21).

Operational risk includes management and oversight of the following main risks:

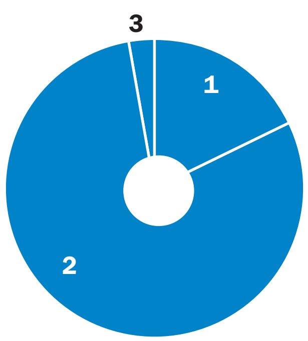
— Reputational risk: the possibility of losses arising from negative publicity related to the bank's practices and activities, potentially leading to a loss of trust in the institution, with an impact on its solvency.
— Technology risk: impact or effect on customer services (both internal and external) in terms of the types of services affected and the resulting quality of such

G19 Value in euro of foreign currency assets and liabilities (%)



Assets in foreign currency

1	US dollar	18.2
2	Pound sterling	77.8
3	Other currencies	4.0



Liabilities in foreign currency

1	US dollar	18.0
2	Pound sterling	79.4
3	Other currencies	2.6

services, which could give rise to losses and/or errors in relation to data integrity, arising from the incorrect management, operation, control and/or failure of information systems and the resilience of such systems and the teams responsible for their management.
- Outsourcing risk: the possibility of losses deriving from failure by suppliers to provide subcontracted services or their discontinuation, weaknesses in their systems' security, disloyal conduct on the part of their employees or a breach of applicable regulations.
- Model risk: the possibility of losses arising from decision-making based on the use of inadequate models.

Technology risk has become a key focus area in the Banco Sabadell Group's risk management approach for a number of reasons:
- Growing importance, complexity and use of technology in banking processes.
- Increase in external threats (cyber crime) and their potential impacts on institutions and the financial system in general.
- Implementation of new business models based on data and new technology and which, consequently, bring new (emerging) risks that could potentially change Banco Sabadell's risk profile.

Additionally, this risk is applicable not only to the bank's systems but also to suppliers, given the widespread use of third parties for support in technological and business processes, and this therefore represents a significant risk when to managing outsourcing.

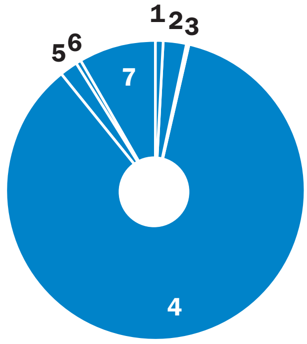
Tax risk

Tax risk is defined as the probability of failing to comply with the objectives set out in Banco Sabadell's tax strategy from a dual perspective due to either internal or external factors:
- On one hand, the probability of failing to comply with the tax obligations that may result in a failure to pay taxes that are due or the occurrence of any other event that impairs attainment of the Bank's goals.
- On the other hand, the probability of paying taxes not actually due under tax obligations, thus impairing the position of shareholders or other stakeholders.

Banco Sabadell's tax risk policies aim to set out principles and guidelines in order to ensure that any tax risks that may affect the Group's tax strategy and objectives are systematically identified, measured and managed so as to comply with the new requirements of the Spanish Capital Companies Act and meet the demands of the Banco Sabadell Group's stakeholders.

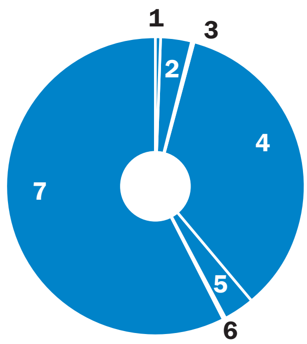
Banco Sabadell aims to meet its tax obligations at all times while conforming to the current legal framework in matters relating to taxation.

Banco Sabadell's tax strategy also reflects its commitment to promoting responsible taxation, adopting a



G20
Breakdown of operational risk events by amount, excl. TSB (last 12 months) (%)

1	Internal fraud	0.6
2	External fraud	3.4
3	Staff relations and job security	0.4
4	Customers, products and business practices	34.7
5	Property damage	3.2
6	Business disruption/ systems failure	0.3
7	Process execution, delivery and management	57.4



G21
Breakdown of operational risk events by amount, excl. TSB (last 5 years) (%)

1	Internal fraud	1.0
2	External fraud	2.6
3	Staff relations and job security	0.1
4	Customers, products and business practices	85.5
5	Property damage	2.0
6	Business disruption/ systems failure	0.5
7	Process execution, delivery and management	8.3

preventive approach and developing transparency programmes in order to strengthen trust among stakeholders.

The tax strategy is governed by the principles of efficiency, prudence, transparency and minimisation of tax risk, and is generally aligned with the business strategy of the Banco Sabadell Group.

The Board of Directors of Banco Sabadell, under the mandate set out in the Spanish Capital Companies Act for the improvement of corporate governance, is responsible for the following, which responsibility is non-delegable:

— Setting the institution's tax strategy.
— Approving investments and transactions of all types that are considered to be strategic or to have a particular tax risk due to their amounts or specific characteristics, except when such approval corresponds to the Annual General Meeting.
— Approving the creation and acquisition of holdings in special purpose entities or entities domiciled in countries or territories classified as tax havens.
— Approving any transaction which, due to its complexity, might undermine the transparency of the institution and its Group.

Thus, the functions of the Board of Directors of Banco Sabadell include the obligation to approve the corporate tax policy and ensure compliance by implementing an appropriate control and oversight system as part of the Group's general risk management and control framework.

Compliance risk

Compliance risk is defined as the risk of incurring legal or administrative penalties, significant financial losses or an impairment of reputation due to a breach of laws, regulations, internal rules or codes of conduct applicable to the Group's business.

An essential aspect of the Banco Sabadell Group's policy, and one of the foundations of its organisational culture, is meticulous compliance with the law. Achievement of the business objectives must be compatible, at all times, with compliance with the law and the application of best practices.

To this end, the Group has a Compliance Department whose mission is to seek the highest levels of compliance with current legislation and ensure that professional ethics are applied in all areas of the Group's activity. This Department assesses and manages compliance risk in order to minimise the possibility of failure to comply with legislation, and to ensure that any instances of non-compliance are diligently identified, reported and resolved. It does this by:

— Distributing and overseeing the implementation of new regulations applicable to all of the institution's activities, in order to ensure that they conform to the law.
— Promoting the establishment of appropriate policies, procedures and controls in order to ensure that the company, its executives, employees and third parties all comply with the applicable regulatory framework and to ensure that the necessary measures are taken to prepare for changes in legislation.
— Coordinating the units within the Compliance Department in order to standardise approaches and provide action guidelines in relation to compliance with the regulatory framework.
— Promoting the creation of a methodological framework that enables the identification, classification and assessment of compliance risks, including risks relating to corporate crime prevention.
— Directing the definition and implementation of control mechanisms to ensure that all activity is in line with the established laws and regulations in relation to: (i) anti-money laundering and terrorist financing, (ii) market integrity, (iii) codes of conduct and investor protection, (iv) insurance distribution, and (v) data protection, with the goal that the standard of compliance be aligned with market best practices.
— Guaranteeing that compliance is supervised through a compliance risk oversight programme, reporting regularly to senior management on compliance risk.
— Liaising with the regulatory bodies, overseeing the responses to demands for information and inspections by official or supervisory bodies in relation to anti-money laundering and counter-terrorist financing (SEPBLAC, Bank of Spain, etc.), and in relation to securities markets (CNMV), insurance distribution (Directorate-General of Insurance and Pension Plans) and data protection (AGPD).
— Advising on and overseeing compliance by the Group with data protection law and liaising between the organisations and the oversight authorities.
— Managing the capabilities required in the units within the Compliance Division in order to ensure that the necessary technical and human resources are in place, thereby enabling Group-level control mechanisms to be designed and implemented that can guarantee the alignment of all activities with the established laws, rules and ethical codes.
— Lending support to the Internal Control Body responsible for compliance with the regulations governing anti-money laundering and counter-terrorist financing.
— Reporting on, reviewing and proposing corrective measures and/or responses to incidents detected in relation to conduct and queries submitted to the Corporate Ethics Committee on potential conflicts of interest, for the purpose of providing guidance to employees.