The Group maintains a solid capital profile after implementing IFRS 9

Capital management

Capital management is the result of an ongoing capital planning process. This process considers expected economic, regulatory and industry performance, as well as adverse scenarios. It factors in projected capital consumption in the various businesses under a number of scenarios as well as market conditions that may determine the efficacy of the measures that may be taken. The process is conducted in line with the bank's strategic goals and the pursuit of attractive returns for shareholders, while ensuring that own funds are sufficient to attend to the risks inherent in the banking business.

As for capital management, it is general Group policy to adapt capital availability to overall risks incurred.

The Group follows the guidelines established by CRD-IV and secondary legislation to determine the capital requirements inherent in the risks that are actually incurred by the Group, based on internal risk measurement models that have been validated independently. The supervisor has authorised the Group to use most of its internal models to calculate regulatory capital requirements.

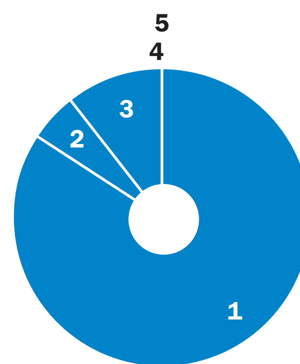
The capital map by risk type at 2018 year-end is shown in figure G11.

The Group back-tests its IRB models regularly: at least once per year. Those tests are reviewed independently by the internal validation unit and reported to the established internal governance bodies, namely the Technical Risks Committee and the Risk Committee (a sub-committee of the Board of Directors). Additionally, the annual Pillar III disclosures present the results of back-tests that are germane to the risk parameters and their main conclusions based on the EBA's disclosure guidelines.

Also, based on the risk metrics provided by these new methodologies, the group has a comprehensive risk measurement model under an internal measurement unit in terms of assigned capital.

The Group has a complex measurement system in place for each type of risk that it incurs as well as integration methodologies for each of them, all of which apply on an end-to-end basis and take into account possible stress scenarios and the pertinent financial planning. These risk assessment systems conform to best practices.

The Group performs a capital self-assessment each year. This process is based on a broad inventory of previously identified risks and on a qualitative internal assessment of policies, procedures, risk acceptance, measurement and control systems and their corresponding mitigation techniques.
An overall quantitative assessment then determines capital needs based on internal parameters using models employed by the Group (e.g. borrower credit rating or scoring systems), as well as other internal estimates suited to each type of risk. The assessments of each risk type are subsequently combined and an amount of allocated capital is determined. Furthermore, business and financial plans and stress tests are taken into account in order to ascertain whether business trends and possible adverse scenarios may endanger the institution's capital when compared with available equity.



G11 Capital map by risk type 31.12.2018 (%)

1	Credit risk	81.0
2	Structural risk	5.0
3	Operational risk	10.0
4	Market risk	1.0
5	Other	3.0

The assessment of risk in terms of the necessary allocated capital enables it to be compared with the returns, from transaction and customer level up to the business unit level.The group has implemented a system to analyse Risk-Adjusted Return On Capital (RaRoC) provided by this assessment, allowing homogeneous comparisons to be made and enabling them to be factored into transaction pricing.

The amount and quality of capital are metrics used in the Risk Appetite Statement within the Group's Risk Appetite Framework, as described in the chapter on "Risk management".

For further information on capital management, refer to the annual "Pillar 3 Disclosures", available on the bank's website in the section "Shareholder and Investor Information/Financial Information".

Qualifying capital and capital ratios

Regulatory framework

The new regulatory framework under which the European Union implemented the Basel III capital accords of the Basel Committee on Banking Supervision (BCBS) came into force on 1 January 2015 and was to be phased in until 1 January 2019.

This framework, structured in three pillars, regulates minimum own funds that credit institutions need to maintain, both at an individual and a consolidated level, and the way in which these own funds are to be calculated (Pillar 1), an internal capital assessment and oversight process (Pillar 2), and the public information to be disclosed to the market (Pillar 3).

This regulatory framework is comprised of the following legal documents:

— Directive 2013/36/EU of the European Parliament and of the Council of 26 June, on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (generally referred to as CRD-IV).
— Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (generally referred to as CRR).

The CRD-IV directive has been transposed into Spanish law by means of:

— RD-Act 14/2013, of 29 noviembre, on urgent measures to adapt Spanish law to European legislation in connection with the supervision and solvency of financial institutions.
— Act 10/2014, of 26 June, on the regulation, supervision and solvency of credit institutions.
— Royal Decree 84/2015, of 13 February, implementing Act 10/2014 of June 26, on the regulation, supervision and solvency of credit institutions, which completes the regulatory implementation of that Act while also consolidating all the secondary legislation on the regulation and supervision of credit institutions into a single text.
— Bank of Spain Circular 2/2016, of 2 February, whose main objective is to complete, with respect to credit institutions, the transposition of Directive 2013/36/EU (supervision of credit institutions) into Spanish law.

The CRR, which is directly applicable to Member States and, therefore, to Spanish credit institutions, gives the competent national authorities certain regulatory options.

In this regard, by virtue of the authorisation granted by Royal Decree-Act 14/2013, the Bank of Spain released Circulars 2/2014 and 3/2014, of 31 January and 30 July, respectively, and recently Circular 2/2016, through which it uses and elaborates upon those regulatory options.

In accordance with the requirements established in the CRR, credit institutions must have a total capital ratio of 8% at all times. However, under the new regulatory framework, regulators are empowered to require banks to have additional levels of capital.

As a result of the SREP process, during 2018 the Banco Sabadell Group was required at all times to have a Common Equity Tier I ratio (CET1 phased-in) of at least 8.3125% and a phased-in total capital ratio of at least 11.8125%. Those ratios include the minimum required under Pillar 1 (4.50%) and Pillar 2 (1.75%), the capital conservation buffer (1.875%) and the requirement deriving from the bank being classified as systemic (0.1875%).

The Group must also comply with the requirements derived from calculating its specific countercyclical capital buffer, which, when calculated on a quarterly basis in 2018, varied from 0% during the first quarter of the year to 0.14% in December.

This requirement establishes the minimum level of CET1 below which the Banco Sabadell Group would be forced to curtail the distribution of dividends, variable remuneration, and payments related to Additional Tier 1 capital instruments. This level, referred to as the Maximum Distributable Amount (MDA), was set at 8.3125% in 2018 (to which the aforementioned countercyclical buffer must be added).

The Banco Sabadell Group exceeded the required minima throughout 2018 and, consequently, experienced no limitations as to distributions.

On 8 February 2019, the Banco Sabadell Group was notified of the result of the 2018 SREP process, which established the minimum requirements for the Group for 2019.Following the review, the Banco Sabadell Group is required to maintain at all times in 2019 a Common Equity Tier 1 (CET1 phase-in) ratio of at least 9.64% and a total capital ratio (phase-in) of at least 13.14%. Those ratios include the minimum required under Pillar 1 (4.50%) and Pillar 2R (2.25%), the capital conservation buffer (2.50%), the requirement deriving from the bank being classified as systemic (0.25%) and the countercyclical buffer (0.14%). Under these requirements, the MDA is 9.64%.

Additionally, the Group must comply with the requirement derived from the calculation of the countercyclical capital buffer that is specific to it, which was 0.14% as of 2018 year-end.

In aggregate, this is the level of consolidated CET1 below which the Group would be required to calculate the Maximum Distributable Amount (MDA), which would constitute a limit on the payment of dividends, variable remuneration, and coupons to holders of additional Tier 1 capital instruments.

At 31 December 2018, the Group had a phased-in CET1 capital ratio of 12% and, accordingly, did not incur any of the limitations referred to above in connection with capital requirements.

In 2018, the Banco Sabadell Group participated in the stress test carried out by the European Banking Authority (EBA) in cooperation with the Bank of Spain, the European Central Bank (ECB) and the European Systemic Risk Board (ESRB).

— In the baseline scenario, the Banco Sabadell Group was found to have significant capacity for organic capital generation: +86 basis points in the three-year period 2018-2021.
— In the adverse scenario, the Group would have a CET1 ratio of 8.40% (phase-in) or 7.58% (fully-loaded) in 2020. This adverse scenario was established by the ECB and the ESRB with a time horizon of 2020, applying the projections to an assumed static balance sheet as of December 2017 and, therefore, without considering the actions and business strategies taken by the Group after that date. Of the total 446 basis point reduction in the Group's CET1 fully-loaded ratio in the adverse scenario:
    (i) 180 basis points (40% of the total) are related to the United Kingdom where, in particular, the adverse macroeconomic scenario defined for the stress test was particularly severe in comparison with other geographies.

(ii) This impact includes the effect of maintaining constant throughout the test period, 2018-2020, the amount of an increase established by contract between TSB and Lloyds in the cost of IT services paid by TSB to Lloyds, which was applicable only from January 2017 until the migration was completed in April 2018. In the stress test, that amount remained constant during the three years, in accordance with the test methodology, although it was actually applicable only for four months of the period. That represented a 45 basis point reduction in the CET1 fully-loaded ratio.
(iii) Similarly, the costs of Sabadell United Bank incurred in 2017 before the sale of the subsidiary in July of that year were factored into the projections for three-year test period (2018-2020), while neither that subsidiary's revenues or balance sheet were included. That represented a 15 basis point reduction in the CET1 fully-loaded ratio.

Those two factors had a combined anomalous negative impact of 60 basis points on the CET1 fully-loaded ratio.

The test results revealed the Group's resilience and its ability to weather the adverse scenario.

Directive 2014/59/EU of the European Parliament and of the Council, establishing a framework for the recovery and resolution of credit institutions and investment firms, was published on 15 May 2014, and Regulation (EU) No 806/2014 of the European Parliament and of the Council (BRRD), which established the Single Resolution Mechanism, whose goal is to ensure the orderly resolution of failed banks while minimising the cost for taxpayers and the real economy, was published on 15 July 2014.

In order to achieve those objectives, the BRRD provides a number of instruments for use by the competent resolution authority, including internal recapitalisation (or bail-in). To this end, the BRRD introduced a Minimum Requirement for own funds and Eligible Liabilities (MREL) that institutions must comply with at all times in order to ensure they have sufficient loss-absorption capacity so that effective implementation of the resolution tools is guaranteed.

In the context of bank restructuring and resolution, Banco Sabadell is subject to the Single Resolution Board (SRB) as the resolution authority and to the competent Spanish authorities:

— The Bank of Spain, which acts as the resolution avoidance authority.
— Fondo de Reestructuración Ordenada Bancaria (FROB), which is Spain's executive resolution authority.

In May 2018, Banco Sabadell was notified by the Bank of Spain of the decision adopted by the Single Resolution Board (SRB) regarding the minimum requirements for own funds and eligible liabilities (MREL) that apply to it. That decision established a minimum MREL requirement at consolidated level of 22.7% of risk-weighted assets calculated as of 31 December 2016 and a transition period for compliance that expires on January 1, 2020. The decision was based on current legislation, will be updated each year, and may be amended subsequently by the resolution authority. The *MREL* decision is aligned with Banco Sabadell's forecasts and is factored into the funding plan contained in the 2020 strategic plan.

The pro-forma fully-loaded CET1 ratio is now 11.3%, while the pro-forma phased-in CET1 ratio is 12.2%.

As of 31 December 2018, the group's qualifying capital amounted to €12,434 million, i.e. a surplus of €6,012 million, as shown in table T15.

Common Equity Tier 1 (CET1) accounts for 77.4% of qualifying capital. The deductions consist mainly of goodwill and intangibles.

Under Basel III, Tier I comprises CET1 plus mainly Additional Tier 1 funds (9.3% of capital), i.e. equity holdings.

Tier 2 funds, accounting for 13.3% of the BIS ratio, consist basically of subordinated debt.

In its strategic business plan, the Group envisages continuing to manage capital so as to maintain the ample capital position that it has held to date, as evidenced in the results of the Supervisory Review and Evaluation Process (SREP).

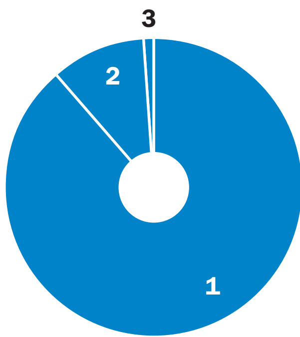
Risk-weighted assets (RWA) are broken down by risk type as shown in figure G12; the largest single component is credit risk.

The breakdown of risk-weighted assets within the largest single category (credit risk), by geography and sector, is shown in figures G13 and G14.

Figures G15 and G16 show the breakdown of regulatory exposure (EAD) and risk-weighted assets (RWA) by segment.

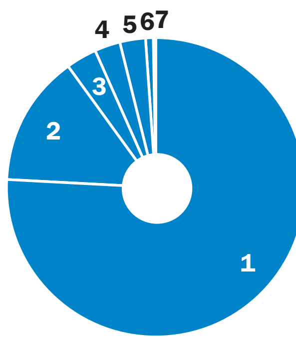
In addition to the capital ratios, the leverage ratio seeks to enhance capital requirements with a supplementary metric unrelated to the level of risk. It is defined as the ratio between Tier 1 qualifying capital and exposure calculated as established for that ratio in Delegated Regulation (EU) 62/2015. Table T16 shows the leverage ratio as of 31 December 2017 and 2018 and 2017, evidencing that the institution amply exceeds the minimum required by the supervisor.

Calculation and disclosure requirements are set out in part seven of the CRR, while the ratio disclosure is covered in article 451 in part eight. No minimum requirements are established, although the European Commission's proposal dated 23 November 2016 to amend the CRR sets a mandatory minimum of 3%. This is currently reported to the supervisor every quarter.



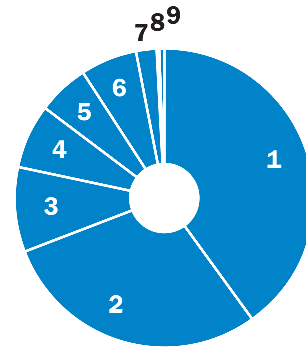
G12
Capital requirements, by exposure type
31.12.2018 (%)

1	Credit risk	88.7
2	Operational risk	10.4
3	Market risk	0.9



G13
Capital requirements, by region
31.12.2018 (%)

1	Spain	75.9
2	UK	14.2
3	Rest of EU	3.3
4	Latin America	2.8
5	North America	2.7
6	Rest of the world	1.0
7	Rest of OECD	0.1



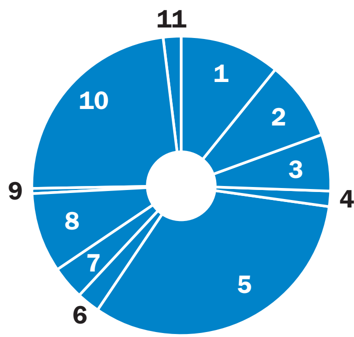
G14
Exposure, by segment
31.12.2018 (%)

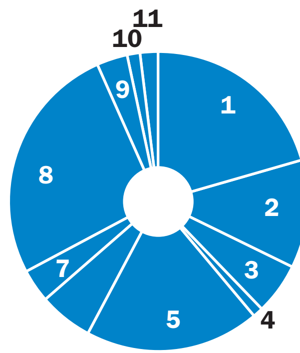
1	Finance, commerce and other services	40.2
2	Individuals	29.2
3	Transport, distribution and hospitality	9.0
4	Real estate	7.1
5	Manufacturing industries	5.6
6	Energy production and distribution	6.1
7	Construction	2.0
8	Agriculture, livestock and fishing	0.5
9	Extractive industries	0.3

T15 Composition of the capital ratios

€M

	2017	2018	% 18/17
Capital	703.4	703.4	—
Reserves	12,106.6	11,732.2	(3.1)
Convertible bonds	—	—	—
Non-controlling interests	16.6	11.4	(31.3)
Deductions	(2,411.9)	(2,828.3)	17.3
CET1 capital	**10,414.7**	**9,618.7**	**(7.6)**
CET1 (%)	13.4	12.0	—
Preference shares, convertible bonds and deductions	696.1	1,152.6	—
AT1 capital	**696.1**	**1,152.6**	**—**
AT1 (%)	0.9	1.4	—
Primary capital	**11,110.8**	**10,771.3**	**(3.1)**
Tier I (%)	14.3	13.4	—
Secondary capital	**1,348.0**	**1,662.6**	**23.3**
Tier II (%)	1.7	2.1	—
Total capital	**12,458.8**	**12,433.9**	**(0.2)**
Minimum capital requirement	6,200.4	6,422.3	3.6
Capital surplus	**6,258.4**	**6,011.6**	**(3.9)**
Total capital ratio (%)	**16.1**	**15.5**	**(3.8)**
Risk weighted assets (RWA)	**77,505.0**	**80,278.8**	**3.6**





G15
EAD by segment
31.12.2018 (%)

1	Companies	11.1
2	Corporate SME	8.4
3	Retail SME	6.3
4	Retailers and sole proprietors	1.5
5	Mortgage loans	32.4
6	Loans	2.4
7	Other retail	3.7
8	Other	8.6
9	Equities	0.4
10	Public sector	23.3
11	Financial institutions	1.9

G16
RWA by segment
31.12.2018 (%)

1	Companies	20.6
2	Corporate SME	11.8
3	Retail SME	5.5
4	Retailers and sole proprietors	1.2
5	Mortgage loans	18.9
6	Loans	5.7
7	Other retail	3.6
8	Other	26.3
9	Equities	3.1
10	Public sector	1.4
11	Financial institutions	1.9

T16 Leverage ratio

€M

	2017	2018
Tier 1 capital	11,110.8	10,771.3
Exposure	223,445.0	221,104.3
Leverage ratio	**4.97** %	**4.87** %

Capital-raising

In the last five years, the bank has increased the capital base by more than €5,000 million through organic generation of profits and through issues that qualify as top tier capital, including the €1,607 million rights issue in 2015 as a result of the TSB acquisition (T17).

In 2017, there were two issues of AT1 perpetual contingently convertible securities in the amount of €750 million and €400 million, which helped to optimise Banco Sabadell's capital structure. In December 2018, €500 million of subordinated debt (Tier 2) were issued.

The changes in the period 2017-2018, which resulted in eligible CET1 amounting to €9,619 million, reflect basically two effects: the conclusion of the transition period for the deduction of intangibles and goodwill, which are now deducted in full from CET1, whereas in 2017 20% was deducted from AT1; and the implementation of IFRS 9 although, since the Group decided to apply the transitional arrangements provided in Regulation (EU) 2017/2395, the effect was split into a number of items, affecting not only capital but also capital requirements. Additionally, there was the impact of adjusting the portfolio to fair value, the impairment of the holding in SAREB, and the impact of institutional sales of NPAs (extraordinary provisions booked in the consolidated income statement).

Risk weighted assets (RWA) amounted to €80,279 million, a 7.7% increase year-on-year, reflecting the change in asset quality and organic business growth.

All of these capital-related events, which impacted both available capital and risk-weighted assets, enabled Banco Sabadell to reach a phased-in common equity tier 1 (CET1) ratio of 12% in December 2018, and a total capital ratio of 15.5%, amply exceeding the standards required by the regulatory framework.

T17

€M

		Amount	Impact on capital
February 2011	Debt-for-equity swap (equity raised through accelerated book building, and repurchase of preferred securities and subordinated debt)	411	+68 bp of Core Tier I
February 2012	Preference shares swapped for ordinary shares	785	+131 bp of Core Tier 1
March 2012	Capital increase	903	+161 bp of Core Tier I
July 2012	Preferential debt instruments and Banco CAM subordinated shares swapped for ordinary shares	1,404	+186 bp of Core Tier 1
September 2013	Accelerated bookbuilding and rights issue	1,383	+178 bp of Core Tier I
October 2013	Mandatorily convertible bonds issued and exchanged for B. Gallego hybrids	122	+17 bp of Core Tier I
April 2015	Rights issue - TSB	1,607	+181 bp of Core Tier I

Note: The impact on capital (in basis points) is calculated using the year-end data for each year; these figures have varied significantly due to the increase in the Group's consolidation scope in the last few years.