12. Interest rate risk in the banking book

The interest rate risk derived from the Banking Book operations is assessed through a process of risk sensitivity analysis, undertaken every month, covering all the operations included in the Group's consolidated balance sheet, reflecting the potential economic value loss that may occur as a result of adverse changes to interest rates.

The Banking Book includes all the positions not included in the Trading Book, namely, the positions resulting from institutional funding operations and from money markets, commercial and structural operations and the securities of the Investment Portfolio, as well as the operations carried out within the scope of the Group's assets and liabilities structural management (ALM).

The changes in market interest rates have an impact over the Group's net interest income, both in a short-term and in a medium/long-term perspective. The main risk factors are the repricing mismatch of the portfolio positions (repricing risk) and the changes in the level of the market interest rates (yield curve risk). In addition – although with less relevant impacts – there is the risk of having unequal variations in different indexes with the same repricing period (basis risk).

In order to identify the exposure of the Group's Banking Book to these risks, the monitoring of the interest rate risk takes into consideration the financial characteristics of the contracts available in the systems' databases and the respective expected cash flows are projected in accordance with their repricing dates. Hence, this provides an assessment of the impact on the Group's economic value that would result from several alternative scenarios involving changes in market interest rate curves.

The Commercial and Structural areas' risk positions that are not specifically hedged against the market are transferred, through internal operations, to the Funding areas and/or CALCO and, from then on, they are incorporated in the respective portfolios. As such, they are daily evaluated through the VaR methodology.

The fundamental assumptions used in this analysis are documented in internal regulations and consist, essentially, on one hand, in definitions about interest rate repricing maturities (for items for which there is no defined repricing date) and, on the other hand, in certain expected behaviours concerning early repayments.

In 2020, for items for which there are no defined repricing dates, the following assumptions of repricing terms were applied:

- *Nostro* and *Vostro* Accounts: assumption of repricing in 1 month.
- Demand deposits at central banks: assumption of repricing in 1 month.
- Roll-over credit/Current accounts and overdrafts: assumption of 40% repricing in 12 months, 15% in 24 months, 15% in 36 months, 15% in 48 months and 15% in 60 months.
- Roll-over credit/Credit cards: assumption of 50% repricing in 12 months, 15% in 24 months, 15% in 36 months, 10% in 48 months and 10% in 60 months.
- Roll-over credit/Factoring: assumption of 45% repricing in 12 months, 15% in 24 months, 15% in 36 months, 15% in 48 months and 10% in 60 months.
- Non-interest-bearing demand deposits and other deposits (in Euros): assumption of 15% repricing in 12 months, 10% in 24 months, 10% in 36 months, 10% in 48 months and 55% in 60 months.
- Non-interest-bearing demand deposits and other deposits (in other currencies): assumption of 20% repricing in 12 months, 20% in 24 months, 10% in 36 months, 10% in 48 months and 40% in 60 months.
- Interest earning demand deposits: assumption of 50% repricing in 1 month, 40% in 3 months and 10% in 6 months.

Stress tests are carried out for the Banking Book by applying standard shocks of parallel shifts of the yield curve. Also, stress tests are carried out for all Group positions for which interest rate risk is a relevant component, by considering different macroeconomic scenarios that contemplate several variables of analysis.

Stress tests are carried out every six months, with the aim of assessing the impact of extreme situations that cannot be measured through VaR and BPV analyses (Basis Point Value - analysis of positive and negative impacts as a result of interest rate variations).

The macroeconomic scenarios are designed based on the economic situation and on the impact that may result from changes in the main risk analysis variables - namely, on traded assets prices, interest rates, exchange rates, default probabilities and the recovery rates of non-performing loans.

Table 80 illustrates the impacts on the shareholders' equity of the Group, as at 31 December 2020 and 2019, in amount and percentage, as a result of +200 and –200 basis points shocks in interest rates.

TABLE 80 - SENSITIVITY ANALYSIS TO THE INTEREST RATE RISK IN THE BANKING BOOK

(Thousand euros)

		31 Dec 2020	31 Dec 2019
Value	+200 bp	-27,147	-9,487
	-200 bp	175,099	117,026
% Shareholders' equity [1]	+200 bp	0.3%	0,1%
	-200 bp	2.5%	1,7%

[1] Shareholders' equity excludes hybrid products accounted in Equity but not eligible for CET1 capital.

On both end-of-years, the range of shocks considered in this analysis (parallel variations of interest rate curves of +/- 200 bps) reflects a relevant asymmetry of impacts over the economic value of the Group. This is due to the assumptions related with the limits to interest rate decreases in rates decrease scenarios and to the different impacts verified over the portfolio for the several repricing terms (resulting in different effective impacts occurring under the two scenarios).