
Risk management

MAIN RISKS AND UNCERTAINTIES

The macroeconomic scenario and the high volatility of the financial markets require constant monitoring of the factors that make it possible to pursue sustainable profitability: high liquidity, funding capability, low leverage, adequate capital base, and prudent asset valuations.

Group liquidity remains high: as at 30 June 2019, both the regulatory indicators LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio), also adopted as internal liquidity risk measurement metrics, were well above fully phased-in requirements established by Regulation 575/2013 and Directive 2013/36/EU. At the end of June, the Central Banks eligible liquidity reserves came to 191 billion euro (175 billion euro at the end of December 2018), of which 110 billion euro, net of haircut, was unencumbered (89 billion euro at the end of December 2018). The High Quality Liquid Assets (HQLA), which can be easily and immediately converted to meet liquidity needs, represented 60% of the own portfolio and 94% of the unencumbered one.

The loan to deposit ratio at the end of June 2019, calculated as the ratio of loans to customers to direct deposits from banking business, came to 93%.

In terms of funding, the widespread branch network remains a stable, reliable source: 77% of direct deposits from banking business come from retail operations (326 billion euro). In addition, 1 billion euro of covered bonds, 13.2 billion Yen of unsecured senior Tokyo Pro-Bonds and 2.25 billion euro of unsecured senior preferred bonds were placed during the half year.

With regard to the targeted refinancing operation TLTRO II, at the end of June 2019, the Group's participation amounted to 61 billion euro.

The Intesa Sanpaolo Group's leverage ratio was 6.1% as at 30 June 2019.

The capital base also remains high. Own funds, risk-weighted assets and the capital ratios at 30 June 2019 are calculated according to the harmonised rules and regulations for banks and investment companies contained in Directive 2013/36/EU (CRD IV) and in (EU) Regulation 575/2013 (CRR) of 26 June 2013, which have transposed the banking supervision standards defined by the Basel Committee (the Basel 3 Framework) to European Union laws, and on the basis of Bank of Italy Circulars 285, 286 and 154.

At the end of the first half, Own Funds – taking account of the transitional treatment adopted to mitigate the impact of IFRS 9 – came to 49,241 million euro, against risk-weighted assets of 280,260 million euro, which primarily reflected credit and counterparty risk and, to a lesser extent, market and operational risk.

The Total Capital Ratio stood at 17.6%, while the ratio of the Group's Tier 1 capital to its total risk-weighted assets (Tier 1 ratio) was 15.3%. The ratio of Common Equity Tier 1 capital (CET1) to risk-weighted assets (the Common Equity Tier 1 ratio) was 13.6%.

Having met the regulatory requirements for its inclusion pursuant to article 26(2) of the CRR, the Common Equity Tier 1 Capital as at 30 June 2019 took account of the figure of 20% of the net income for the period (net of foreseeable costs), in consideration of the payout ratio of 80% established for 2019 in the dividend policy of the 2018-2021 Business Plan.

The Group's risk profile remained within the limits approved by the Risk Appetite Framework, consistent with the intention to continue to privilege commercial banking operations. In relation to market risk, the Group's average risk profile in terms of VaR during the first six months of 2019 was approximately 170 million euro, compared to an average amount of approximately 55 million euro in the same period of 2018. The performance of this indicator – mainly determined by Banca IMI and described in greater detail later in this chapter – derives from an increase in the risk measures, mainly attributable to government bonds dealing, consistently with the 2019 Risk Appetite Framework.

The macroeconomic environment and the financial market volatility heighten the complexity of assessing credit risk and measuring financial assets.

Intesa Sanpaolo has developed a set of instruments which ensure analytical control over the quality of loans to customers and financial institutions, and of exposures subject to country risk.

With regard to performing loans to customers, the "collective" adjustments, equal to 1,991 million euro, provide a coverage ratio of 0.5%, which is sufficient for the intrinsic risk of the Stage 1 and Stage 2 portfolios.

The methods used to classify non-performing loans and to measure both non-performing and performing loans ensure that the impacts of the deteriorating economic environment on a debtor's position are promptly recognised. The economic context has called for constant review of the values of loans that had already shown problematic symptoms and of loans with no obvious signs of impairment. All categories of non-performing loans are carefully assessed. Bad loans and unlikely-to-pay loans had coverage levels of 65.9% and 37.2% respectively.

Constant attention has been paid to the valuation of financial items. The majority of the financial assets are measured at fair value or are represented by hedging derivatives.

Excluding the insurance segment whose financial assets are almost all measured using level 1 inputs, the fair value measurement of the remaining financial assets measured at fair value through profit and loss was carried out as follows: around 62% using level 1 inputs, around 31% using level 2 inputs and only around 7% using level 3 inputs.

Investment levels in structured credit products and hedge funds remained low. The structured credit products generated a positive contribution of 24 million euro during the period, whereas the hedge funds generated a profit of 5 million euro over the six months, as described in more detail in the specific paragraphs of this chapter.

In volatile market environments, measuring the recoverable amount of intangible assets is also particularly delicate. No problematic issues requiring the remeasurement of the recoverable values of intangible assets and goodwill were identified during the period. In any event, it should be noted that, with regard to the scenario forecasts included in the income projections used for the 2018 impairment test, the latest macroeconomic estimates envisage a reduction of Italian GDP growth from 0.6% to 0.2% for 2019. However, also taking into account this reduction throughout the plan scenario, this would result in a potential risk, understood as an adverse impact on the Group's net income, that would not generate critical impairment issues for any of the Cash Generating Units (CGUs) to which intangible assets with an indefinite useful life have been allocated. In addition, the analyses conducted did not identify deviations from the budget of financial flows produced by the business divisions and any changes to the main parameters and macroeconomic aggregates that could have an adverse impact on the discount rates underlying the models used to verify the carrying amount of the intangible assets with an indefinite useful life. Specifically, there was a general decrease in both the rates used to discount the cash flows over the "explicit" forecast period and those relating to the terminal value.

On the other hand, for the intangible assets with finite useful lives, no critical factors have arisen regarding the stability of the recoverable amount, thanks to both the positive trend in insurance reserves and in volumes (Assets under Management and Client relationships).

THE BASIC PRINCIPLES OF RISK MANAGEMENT

The policies relating to risk taking and the processes for the management of the risks to which the Group is or could be exposed are defined by the Board of Directors of Intesa Sanpaolo as the Parent Company, with the support of the Risks Committee. The Management Control Committee, which is the body with control functions, supervises the adequacy, efficiency, functionality and reliability of the risk management process and of the Risk Appetite Framework.

The Managing Director and CEO has the power to submit proposals for the adoption of resolutions concerning the risk system and implements all the resolutions of the Board of Directors, with particular reference to the implementation of the strategic guidelines, the RAF and the risk governance policies.

The Corporate Bodies also benefit from the action of some Management Committees on risk management. These Committees, which include the Steering Committee, operate in compliance with the primary responsibilities of the Corporate Bodies regarding internal control system and the prerogatives of corporate control functions, and in particular the risk control function.

Subject to the powers of the Corporate Bodies, the Chief Risk Officer Governance Area is responsible for: (i) governing the macro-process of definition, approval, control and implementation of the Group's Risk Appetite Framework with the support of the other corporate functions involved; (ii) cooperating with the Corporate Bodies in setting the Group's risk management guidelines and policies in accordance with the company's strategies and objectives; (iii) coordinating and verifying the implementation of those guidelines and policies by the responsible units of the Group, including within the various corporate departments; (iv) ensuring the management of the Group's overall risk profile by establishing methods and monitoring exposures to the various types of risk and reporting the situation periodically to the Corporate Bodies; (v) carrying out level 2 controls on credit and other risks and ensuring the validation of internal risk measurement systems.

The Parent Company performs a guidance and coordination role with respect to the Group companies², aimed at ensuring effective and efficient risk management at Group level, exercising responsibility in setting the guidelines and methodological rules for the risk management process, and pursuing, in particular, integrated information at Group level to the Bodies of the Parent Company, with regard to the completeness, adequacy, functioning and reliability of internal control system. For the corporate control functions in particular, there are two different types of models within the Group: (i) the centralised management model based on the centralisation of the activities at the Parent Company and (ii) the decentralised management model that involves the presence of locally established corporate control functions that conduct their activities under the direction and coordination of the same corporate control functions of the Parent Company, to which they report in functional terms.

Irrespective of the control model adopted within their company, the corporate bodies of the Group companies are aware of the choices made by the Parent Company and are responsible for the implementation, within their respective organisations, of the control strategies and policies pursued and promoting their integration within the Group controls.

The risk measurement and management tools contribute to defining a risk-monitoring framework at Group level, capable of assessing the risks assumed by the Group from a regulatory and economic point of view. The level of absorption of economic capital, defined as the maximum "unexpected" loss the Group might incur over a year, is a key measure for determining the Group's financial structure, risk appetite and for guiding operations, ensuring a balance between risks assumed and shareholder returns. It is estimated on the basis of the current situation and also as a forecast, based on the budget assumptions and projected economic scenario. The assessment of capital is included in business reporting and is submitted quarterly to the Steering Committee, the Risk Committee and the Board of Directors, as part of the Group's Risks Tableau de Bord. Risk hedging, given the nature, frequency and potential impact of the risk, is based on a constant balance between mitigation/hedging action, control procedures/processes and capital protection measures.

² In this regard, it is specified that Intesa Sanpaolo does not exercise management and coordination over Risanamento S.p.A. and Autostrade Lombarde S.p.A. and their subsidiaries pursuant to Article 2497 et seq. of the Italian Civil Code.

THE BASEL 3 REGULATIONS

In view of compliance with the reforms of the previous accord by the Basel Committee (“Basel 3”), the Intesa Sanpaolo Group has undertaken adequate project initiatives, expanding the objectives of the Basel 2 Project in order to improve the measurement systems and the related risk management systems.

With regard to credit risks, there have been no changes with respect to the situation as at 31 December 2018, except for the extension in May 2019 of the Group’s Institutions, Corporate and Retail internal models to the portfolio acquired from the former Banca Apulia, subsequently merged into Intesa Sanpaolo.

The development and application of IRB systems for the other segments and the extension of the scope of companies is proceeding according to the Group’s Basel 3 roll-out plan.

The situation as at 30 June 2019 is shown in the following table:

Portfolio	PD – model type	LGD – model type	EAD – model type	Status
Institutions	Default model (Banks) ⁽⁴⁾	Market model (Banks)	Regulatory Parameters (Banks)	AIRB authorised since June 2017
	Default model (Municipalities and Provinces) Shadow model (Regions) ⁽⁴⁾	Workout model (Municipalities and Provinces and Regions)	Regulatory Parameters (Municipalities and Provinces and Regions)	AIRB authorised since June 2017
Corporate	Default model (Corporate)	Workout model (Corporate; Leasing and Factoring)	CCF/ K factor model (Corporate)	FIRB authorised since December 2009, AIRB LGD authorised since December 2010, EAD authorised since September 2017 ⁽¹⁾
	Simulation models (Specialised Lending)	Simulation models (Specialised Lending)	Regulatory Parameters (Specialised Lending)	AIRB authorised since June 2012
Retail	Default model (Retail)	Workout model (Retail)	CCF/ K factor model (Retail)	AIRB Retail authorised since September 2018 ⁽²⁾
	Default model (Retail SME)	Workout model (Retail SME)	Regulatory Parameters (Retail SME)	AIRB authorised since December 2012 ⁽³⁾

- 1) Intesa Sanpaolo: FIRB authorised since December 2008, LGD AIRB since December 2010 and AIRB since 2017 (EAD model authorisation). Mediocredito Italiano AIRB authorised since December 2010. Banca Imi (2012), ISP Ireland (2010), VUB (2010), Banca Intesa dd (2017), ISP Luxembourg (2017). Since 2017, the Corporate model has also been used to calculate the risk on the banking book equity portfolio with LGD 65%/90%
- 2) The authorisation for the IRB Retail model received in 2018 represented a model change for the Retail Mortgage component, already authorised in 2010, and a new validation for the Other Retail component. VUB has been authorised since June 2012 for the PD and LGD Retail Mortgage models.
- 3) VUB has been authorised since June 2014
- 4) Intesa Sanpaolo, Mediocredito Italiano and Banca Imi have been authorised since 2017

With regard to counterparty risk on OTC derivatives and SFTs, the Group has improved the measurement and monitoring, by refining the instruments required under Basel 3. For reporting purposes, Intesa Sanpaolo, Banca IMI and the companies of the Banca dei Territori Division (only Mediocredito Italiano remaining as at 30 June) are authorised to use internal models (both for the determination of Exposure at default for replacement risk and for the CVA capital charge for migration risk).

With regard to Operational Risk, the Group obtained authorisation to use the Advanced Measurement Approach (AMA – internal model) to determine the associated capital requirement for regulatory purposes, with effect from the report as at 31 December 2009.

The annual Internal Capital Adequacy Assessment Process (ICAAP) Report, based on the extensive use of internal approaches for the measurement of risk, internal capital and total capital available, was approved and sent to the ECB in April 2019.

As part of its adoption of Basel 3, the Group publishes information concerning capital adequacy, exposure to risks and the general characteristics of the systems aimed at identifying, monitoring and managing them in a document entitled “Basel 3 - Pillar 3” or simply “Pillar 3”.

The document is published on the website (group.intesasanpaolo.com) on a quarterly basis.

CREDIT RISK

The Intesa Sanpaolo Group's strategies, powers and rules for credit granting and management are aimed at:

- achieving the goal of sustainable growth consistent with the Group's risk appetite and value creation objectives, whilst guaranteeing and improving the quality of its lending operations;
- diversifying the portfolio, limiting the concentration of exposures to counterparties/groups, economic sectors or geographical areas;
- efficiently selecting economic groups and individual borrowers through a thorough analysis of their creditworthiness aimed at limiting the risk of insolvency and mitigating potentially associated losses;
- given the current economic climate, favouring lending business aimed at supporting the real economy and production system and at developing relationships with customers;
- constantly monitoring relationships and the related exposures, through the use of both IT procedures and systematic surveillance of positions that show irregularities with the aim of detecting any symptoms of deterioration in a timely manner.

The Group has developed a set of techniques and tools for credit risk measurement and management which ensures analytical control over the quality of loans to customers and financial institutions, and loans subject to country risk.

In particular, with regard to loans to customers, risk measurement is performed by means of different internal rating models according to borrower segment (Corporate, Retail SME, Retail, Sovereigns, Italian Public Sector Entities and Banks). These models make it possible to summarise the counterparty's credit quality in a value, the rating, which reflects the probability of default over a period of one year, adjusted on the basis of the average level of the economic cycle. These ratings are then made comparable with those awarded by rating agencies, by means of a consistent scale of reference.

Ratings and credit-risk mitigating factors (guarantees, loan types and covenants) play a key role in the loan granting and managing process.

There were no changes relating to the authorisations for the models to be applied to the specific portfolios with respect to 31 December 2018, except for the abovementioned extension of the Group's Institutions, Corporate and Retail internal models to the portfolio acquired from the former Banca Apulia, subsequently merged into Intesa Sanpaolo.

Credit quality

Constant monitoring of the quality of the loan portfolio is also pursued through specific operating checks for all the phases of loan management.

The overall watch-list and non-performing loan portfolio is subject to a specific management process which, inter alia, entails accurate monitoring through a control system and periodic managerial reporting. In particular, this activity is performed using measurement methods and performance controls that allow the production of synthetic risk indicators. The quality of the loan portfolio is pursued through specific operating checks for all the phases of loan management, through the use of both IT procedures and systematic supervision of positions with the aim of detecting any symptoms of difficulty and promote corrective measures to prevent possible deterioration of credit risk.

Positions are detected and automatically entered in the credit management processes by way of daily and monthly checks using objective risk indicators that allow timely assessments when any anomalies arise or persist and interact with processes and procedures for loan management and monitoring.

Within the Group, in accordance with pre-set rules, positions which are attributed a persistent high-risk rating are intercepted (manually or automatically) and classified to the following categories based on their risk profile, in accordance with the regulatory provisions on credit quality:

- Bad loans: the set of "on-" and "off-balance sheet" exposures towards borrowers in default or similar situations;
- Unlikely to pay: "on-" and "off-balance sheet" exposures which the bank, based on its opinion, does not deem likely to be completely (as principal and/or interest) repaid by the borrowers without the implementation of actions such as enforcement of guarantees. This assessment is irrespective of the presence of any amounts (or instalments) due and unpaid.

The category of non-performing loans also includes past due positions that cannot be considered mere delays in reimbursements, as established by the Bank of Italy.

Lastly, non-performing exposures also include the individual forbore exposures which comply with the definition of "Non-performing exposures with forbearance measures" envisaged by the EBA ITS (European Banking Authority - Implementing Technical Standards), which are not a separate category of non-performing assets, but rather a sub-category. Similarly, exposures characterised by "forbearance measures" are also included among performing loans.

The management process for such exposures, in close accordance with regulatory provisions concerning classification times and methods, is assisted by automatic mechanisms that ensure pre-established, autonomous and independent management procedures.

Captions	30.06.2019			01.01.2019			Change
	Gross exposure	Total adjustments	Net exposure	Gross exposure	Total adjustments	Net exposure	Net exposure
Bad loans	20,685	-13,631	7,054	21,734	-14,596	7,138	-84
Unlikely to pay	13,610	-5,058	8,552	14,268	-5,167	9,101	-549
Past due loans	501	-126	375	473	-121	352	23
Non-Performing Loans	34,796	-18,815	15,981	36,475	-19,884	16,591	-610
<i>Non-performing loans in Stage 3 (subject to impairment)</i>	34,724	-18,800	15,924	36,396	-19,865	16,531	-607
<i>Non-performing loans designated at fair value through profit or loss</i>	72	-15	57	79	-19	60	-3
Performing loans	374,473	-1,991	372,482	373,877	-2,105	371,772	710
<i>Stage 2</i>	40,936	-1,268	39,668	43,880	-1,316	42,564	-2,896
<i>Stage 1</i>	332,962	-723	332,239	329,555	-789	328,766	3,473
<i>Performing loans designated at fair value through profit or loss</i>	575	-	575	442	-	442	133
Performing loans represented by securities	5,794	-33	5,761	5,131	-19	5,112	649
<i>Stage 2</i>	1,967	-26	1,941	986	-16	970	971
<i>Stage 1</i>	3,827	-7	3,820	4,145	-3	4,142	-322
Loans held for trading	29	-	29	75	-	75	-46
Total loans to customers	415,092	-20,839	394,253	415,558	-22,008	393,550	703
<i>of which forbore performing</i>	7,598	-334	7,264	8,322	-385	7,937	-673
<i>of which forbore non-performing</i>	8,680	-3,584	5,096	9,192	-3,755	5,437	-341
Loans to customers classified as discontinued operations (*)	604	-161	443	1,244	-310	934	-491

Figures restated, where necessary and material, considering the changes in the scope of consolidation and discontinued operations.

(*) As at 30 June 2019, this caption included the portfolio of bad loans, unlikely-to-pay loans and performing loans soon to be sold (gross exposure of 254 million euro, total adjustments of 112 million euro, net exposure of 142 million euro) and the so-called "high-risk" loans originating from the Aggregate Set of Banca Popolare di Vicenza and Veneto Banca, reclassified as bad loans and/or unlikely-to-pay loans, for which the sale contract provides the option to transfer them to the Banks in compulsory administrative liquidation (gross exposure of 350 million euro, total adjustments of 49 million euro, net exposure of 301 million euro).

As at 30 June 2019, the Group's net non-performing loans amounted to 16 billion euro, down by 3.7% compared with the beginning of the year, continuing the progressive decline that marked the previous year. Non-performing assets decreased slightly as a percentage of total net loans to customers, down to 4.1%, while the coverage ratio for non-performing loans remained high at 54.1%, in accordance with the de-risking strategy outlined in the Business Plan.

In further detail, bad loans came to 7.1 billion euro, net of adjustments, at the end of June 2019, confirming the figure of the beginning of the year, and continued to represent 1.8% of total loans. During the same period, the coverage ratio stood at 65.9%. Loans included in the unlikely-to-pay category amounted to 8.6 billion euro, down by 6%, accounting for 2.2% of total loans to customers, with a coverage ratio of 37.2%. Past due loans amounted to 375 million euro, up 6.5% since the beginning of the year, with a coverage ratio of 25.1%. Within the non-performing loan category, forbore exposures, generated by forbearance measures for borrowers experiencing difficulty in meeting their financial obligations, amounted to 5.1 billion euro, with a coverage ratio of 41.3%, while forbore exposures in the performing loans category amounted to 7.3 billion euro. Overall, the coverage ratio of performing loans amounted to 0.5%, sufficient for the intrinsic risk of the Stage 1 and Stage 2 portfolios.

Counterparty risk

Counterparty risk is a particular type of credit risk, relating to OTC derivatives and SFTs (Securities Financing Transactions), which refers to the possible default of the counterparty before the expiry of a contract that has a positive market value.

The Group uses techniques to mitigate counterparty risk through bilateral netting arrangements which enable the netting off of credit and debit positions in the event of counterparty default.

This is achieved by entering into ISDA agreements, for OTC derivatives, which also reduce the absorption of regulatory capital in accordance with supervisory provisions.

In addition, the Bank establishes collateral arrangements, where possible, typically calling for daily margins, to hedge bilateral OTC derivatives (CSAs) and SFTs (GMRAs and GMSLAs).

For reporting purposes, Intesa Sanpaolo, Banca IMI and the banks of the Banca dei Territori Division (only Mediocredito Italiano remaining as at 30 June) are authorised to use the internal models approach to calculate the counterparty risk requirement for OTC derivatives and SFTs.

These advanced risk measurement methods are also used at operational level to perform the “use test”: the Financial and Market Risks Head Office Department calculates, validates and sends the metrics to the credit monitoring systems on a daily basis to measure the use of the credit lines for OTC derivatives and SFTs.

The Group’s banks which are not included in the roll-out plan for the internal models nevertheless apply the advanced metrics in a simplified manner at operational level.

To perform the use test of the model, the Group has implemented the processes required by the “Basel 3” regulations.

In particular, stress tests are carried out to measure the impacts on risk measures under extreme market conditions. Backtesting is also conducted to ensure the robustness of the model.

In addition, to complete the risk analysis process, the following corporate processes have been activated:

- definition and periodic analysis of Wrong-Way Risk, i.e. the risk of a positive correlation between the future exposure to a counterparty and that counterparty’s probability of default;
- definition and monitoring of management limits;
- contribution of collateral inflow/outflow risk measures, calculated on the basis of the internal counterparty risk model, for margined OTC derivatives and SFTs;
- periodic reporting to management of the measures calculated using the current and future internal exposure model, analysis of portfolio composition by type of counterparty/division/segment/country, underlying type per SFT capital requirement, level of use of management limits, and results of stress tests and Wrong-Way Risk analyses.

MARKET RISKS

TRADING BOOK

The quantification of trading risks is based on daily and periodic VaR of the trading portfolios of Intesa Sanpaolo and Banca IMI, which represent the main portion of the Group's market risks, to adverse market movements of the following risk factors:

- interest rates;
- equities and market indexes;
- investment funds;
- foreign exchange rates;
- implied volatilities;
- spreads in credit default swaps (CDSs);
- spreads in bond issues;
- correlation instruments;
- dividend derivatives;
- asset-backed securities (ABSs);
- commodities.

Other Group subsidiaries hold smaller trading portfolios with a marginal risk (approximately less than 1% of the Group's overall risk). In particular, the risk factors of the international subsidiaries' trading books are local government bonds, positions in interest rates, and foreign exchange rates relating to linear pay-offs.

Managerial VaR

The analysis of market risk profiles relative to the trading book (managerial VaR scope) uses various quantitative indicators and VaR is the most important. Since VaR is a synthetic indicator which does not fully identify all types of potential loss, risk management has been enriched with other measures, in particular simulation measures for the quantification of risks from illiquid parameters (dividends, correlation, ABS, hedge funds).

VaR estimates are calculated daily based on simulations of historical time-series, a 99% confidence level and 1-day holding period.

Details are provided below of the estimates and evolution of managerial VaR, defined as the sum of VaR and of the simulation on illiquid parameters, for the trading book of Intesa Sanpaolo and Banca IMI.

Sensitivity and greeks

Sensitivity measures make risk profiling more accurate, especially in the presence of option components. These measure the risk attributable to a change in the value of a financial position to predefined changes in valuation parameters including a one basis point increase in interest rates.

Level measures

Level measures are risk indicators which are based on the assumption of a direct relationship between the size of a financial position and the risk profile. These are used to monitor issuer/sector/country risk exposures for concentration analysis, through the identification of notional value, market value or conversion of the position in one or more benchmark instruments (so-called equivalent position).

Stress tests

Stress tests measure the value changes of instruments or portfolios due to changes in risk factors of unexpected intensity and correlation, or extreme events, as well as changes representative of expectations of the future evolution of market variables. Stress tests for management purposes are applied periodically to market risk exposures, typically adopting scenarios based on historical trends recorded by risk factors, for the purpose of identifying past worst-case scenarios, or defining variation grids of risk factors to highlight the direction and non-linearity of trading strategies.

Internal model validation

For some of the risk factors included in the managerial VaR measurements, the Supervisory Authority has validated the internal models for the reporting of the capital requirement of both Intesa Sanpaolo and Banca IMI.

More specifically, concerning market risk, the risk profiles validated are: (i) generic/specific on debt securities and on equities for Intesa Sanpaolo and Banca IMI, (ii) position risk on quotas of UCI underlying CPPI (Constant Proportion Portfolio Insurance) products for Banca IMI and the hedge fund portfolios of the Parent Company (look through approach), (iii) position risk on dividend derivatives and (iv) commodity risk for Banca IMI, the only legal entity in the Group authorised to hold open positions in commodities.

Starting from 1 July 2014, the capital requirements deriving from the use of internal models will benefit from the reduction in the prudential multipliers established by the Supervisory Authority following completion of the previously recommended corrective actions.

Stressed VaR

Capital absorption includes the requirement for Stressed VaR. The requirement derives from the determination of the VaR associated with a market stress period. This period was identified considering the following guidelines, on the basis of the indications presented in the Basel document “Revision to the Basel 2 market risk framework”:

- the period must represent a stress scenario for the portfolio;
- the period must have a significant impact on the main risk factors for the portfolios of Intesa Sanpaolo and Banca IMI;
- the period must allow real time series to be used for all portfolio risk factors.

While using the historical simulation approach for VaR calculation, the latter point is a discriminating condition in the selection of the holding period. Actually, in order to ensure that the scenario adopted is effectively consistent and to avoid the use of driver or comparable factors, the historical period must ensure the effective availability of market data.

For the reporting as at 30 June 2019, the period relevant to the measurement of Stressed VaR was from 1 October 2011 to 30 September 2012 for both Intesa Sanpaolo and Banca IMI.

Incremental Risk Charge (IRC)

The Incremental Risk Charge (IRC) is the maximum potential loss in the credit trading portfolio resulting from an upgrade/downgrade or bankruptcy of the issuers, over a 1-year period, with a 99.9% confidence level. This measure is additional to VaR and enables the correct representation of the specific risk on debt securities and credit derivatives because, in addition to idiosyncratic risk, it also captures event and default risk.

Details are provided below of the estimates and evolution of managerial VaR, defined as the sum of VaR and of the simulation on illiquid parameters, for the trading book of Intesa Sanpaolo and Banca IMI.

Daily managerial VaR of the trading book for Intesa Sanpaolo and Banca IMI ^(a)

During the second quarter of 2019, the market risks originated by Intesa Sanpaolo and Banca IMI decreased compared to the previous period: the average daily managerial VaR was 164 million euro, compared to 177 million euro in the first quarter. In detail, the reduction was due to Banca IMI (average VaR in the first quarter of 160.1 million euro compared to 149 million euro in the second quarter).

	2019				2018				(millions of euro)
	average 2 nd quarter	minimum 2 nd quarter	maximum 2 nd quarter	average 1 st quarter	average 4 th quarter	average 3 rd quarter	average 2 nd quarter	average 1 st quarter	
Intesa Sanpaolo	15.0	13.4	17.0	16.9	13.9	14.4	11.8	7.8	
Banca IMI	149.0	111.6	188.0	160.1	81.3	75.9	50.1	40.3	
Total	164.0	127.7	203.1	177.0	95.2	90.4	61.9	48.1	

(a) Each line in the table sets out past estimates of daily VaR calculated on the quarterly historical time-series respectively of Intesa Sanpaolo and Banca IMI; minimum and maximum values for the two companies are estimated using aggregate historical time-series and therefore do not correspond to the sum of the individual values in the column.

The risk measures for the first half of 2019 (amounting to 170.4 million euro) were up at Group level compared to the first half of 2018 (55 million euro). The performance of this indicator – mainly determined by Banca IMI – derives from an increase in the risk measures, mainly attributable to government bonds dealing, consistently with the 2019 Risk Appetite Framework.

	2019			2018			(millions of euro)
	average 1 st half	minimum 1 st half	maximum 1 st half	average 1 st half	minimum 1 st half	maximum 1 st half	
Intesa Sanpaolo	16.0	13.4	19.0	9.8	6.7	20.9	
Banca IMI	154.4	102.5	192.3	45.2	24.6	85.8	
Total	170.4	116.6	208.8	55.0	33.7	105.3	

(a) Each line in the table sets out past estimates of daily VaR calculated on the historical time-series of the first six months of the year respectively of Intesa Sanpaolo and Banca IMI; minimum and maximum values for the two companies are estimated using aggregate historical time-series and therefore do not correspond to the sum of the individual values in the column.

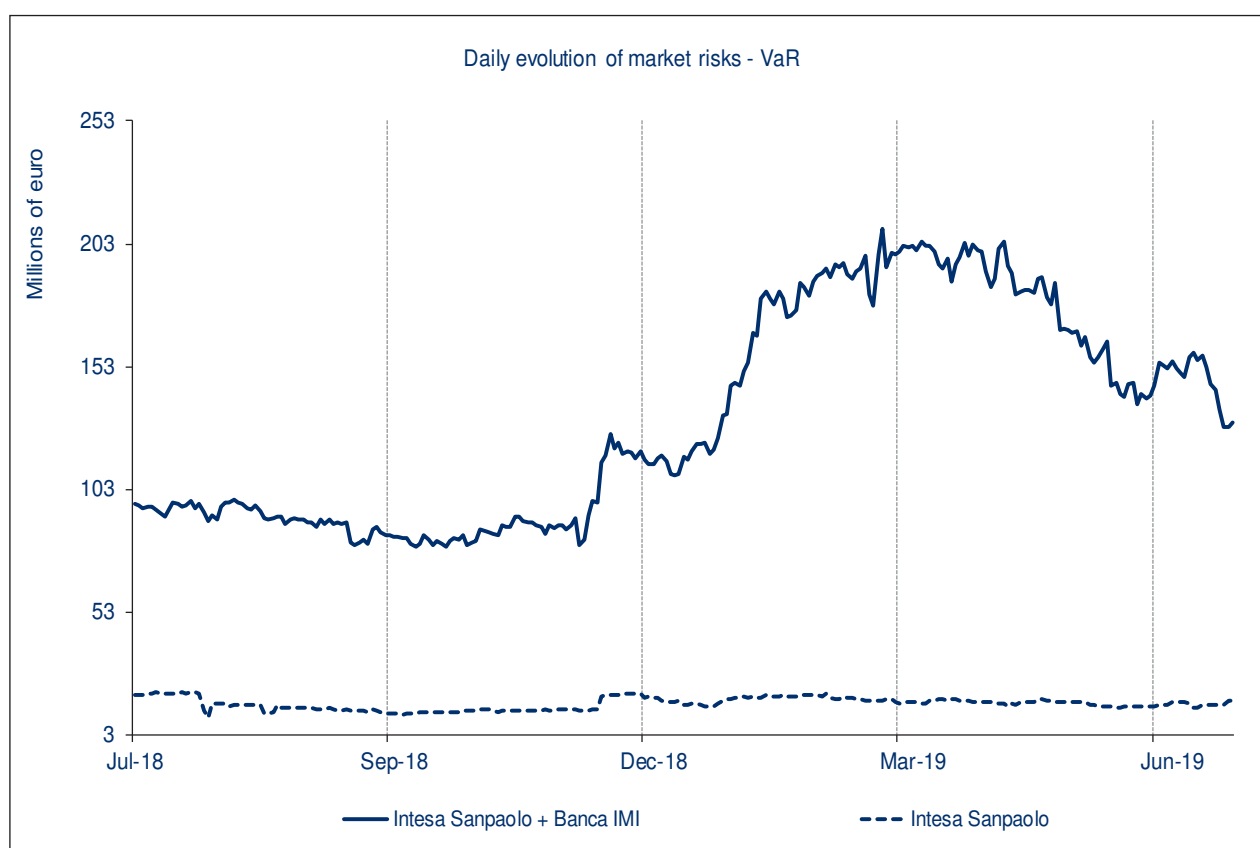
The breakdown of risk profile in the second quarter of 2019 with regard to the various factors shows the prevalence of the risk generated by the spread, which accounted for 59% of the total managerial VaR for Intesa Sanpaolo and 81% for Banca IMI.

Contribution of risk factors to total managerial VaR (a)

2 nd quarter 2019	Shares	Hedge funds	Interest rates	Credit spreads	Foreign exchange rates	Other parameters	Commodities
Intesa Sanpaolo	2%	3%	24%	59%	11%	1%	0%
Banca IMI	2%	0%	14%	81%	0%	2%	1%
Total	2%	0%	14%	80%	1%	2%	1%

(a) Each line in the table sets out the contribution of risk factors considering 100% the overall VaR, calculated as the average of daily estimates in the second quarter of 2019, broken down between Intesa Sanpaolo and Banca IMI and indicating the distribution of overall VaR.

The performance of the VaR is mainly attributable to the operations of Banca IMI. During the first quarter of 2019, the risk measures increased, mainly as a result of dealings in government bonds. The increase in risks is consistent with the 2019 RAF. The second quarter was characterised by the exit of volatile scenarios from the calculation of the historical simulation; this element generates, for a portfolio of securities that was almost stable in the second quarter, a reduction in risks.



Risk control with regard to the activity of Intesa Sanpaolo and Banca IMI also uses scenario analyses and stress tests. The impact of selected scenarios relating to the evolution of stock prices, interest rates, credit spreads, foreign exchange rates and commodity prices at the end of June is summarised in the following table:

(millions of euro)

	EQUITY		INTEREST RATES		CREDIT SPREADS		FOREIGN EXCHANGE RATES		COMMODITIES	
	Crash	Bullish	+40bp	lower rate	-25bp	+25bp	-10%	+10%	Crash	Bullish
Total	0	2	-245	140	579	-560	37	26	0	3

Among these:

- for stock market positions, there would be no losses in both crash and bullish stock market scenarios, given the portfolio non-linearity;
- for positions in interest rates, there would be a loss of 245 million euro in the event of an increase in rate curves of 40 bps;
- for positions in credit spreads, a widening of credit spreads of 25 bps would entail a loss of 560 million euro (primarily relating to government bond positions);
- for foreign exchange positions, there would be a profit in both euro's appreciation and depreciation scenarios, given the portfolio non-linearity;
- finally, for positions on commodities, there would be no losses in both scenarios given the portfolio non-linearity.

Backtesting

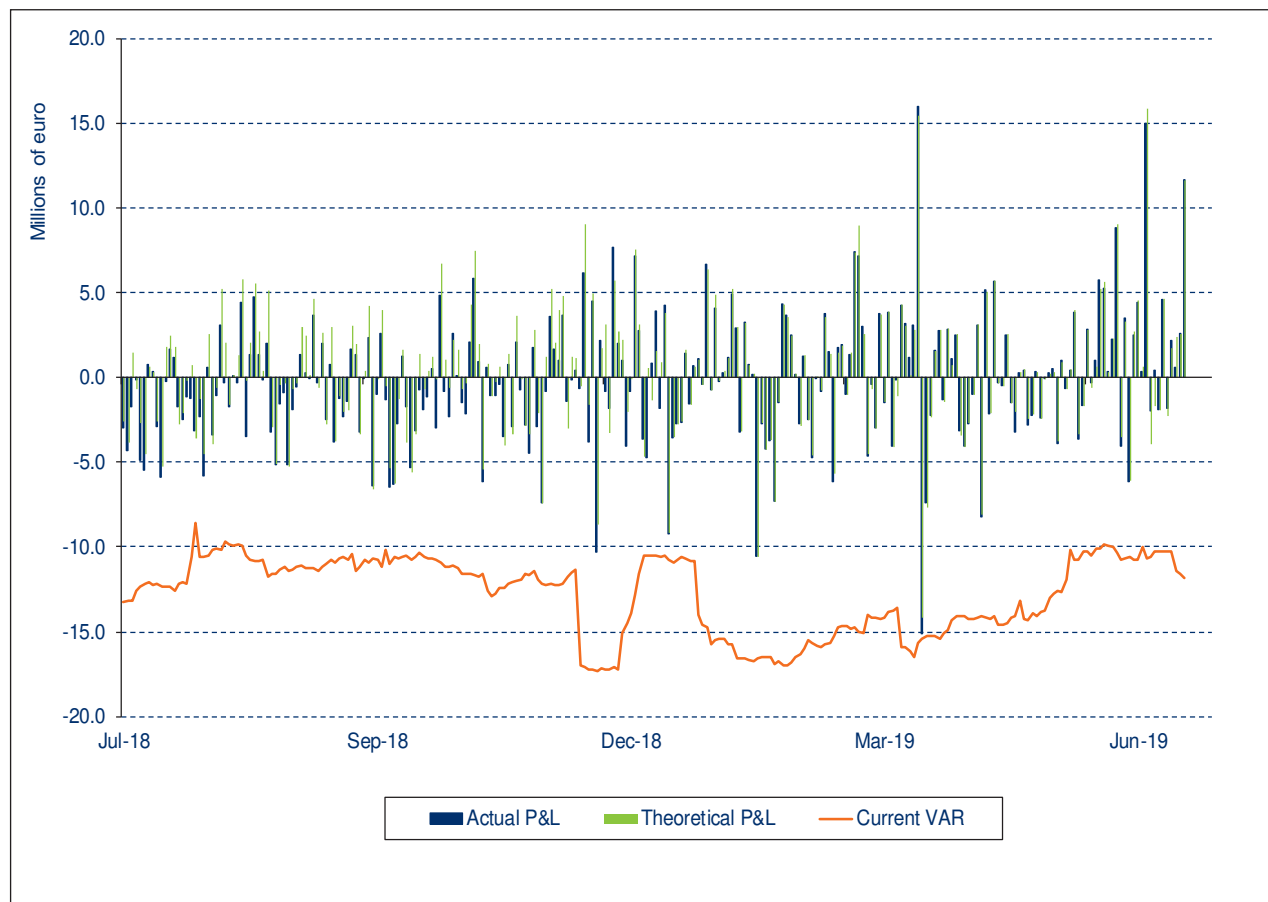
The soundness of the VaR calculation methods must be monitored daily via backtesting which, for the regulatory backtesting, compares:

- the daily estimates of value at risk;
- the daily profits/losses based on backtesting which are determined using actual daily profits and losses achieved by individual desks, net of components which are not considered in backtesting: these include fees, financial costs of managing the positions and P&L reserves that are regularly reported within the managerial area..

Backtesting allows verification of the model's capability of correctly seizing, from a statistical viewpoint, the variability in the daily valuation of trading positions, covering an observation period of one year (approximately 250 estimates). Any critical situations relative to the adequacy of the internal model are represented by situations in which daily profits/losses based on backtesting highlight more than four occasions, in the year of observation, in which the daily loss is higher than the value at risk estimate. Current regulations require that backtesting is performed by taking into consideration both the actual and hypothetical P&L series.

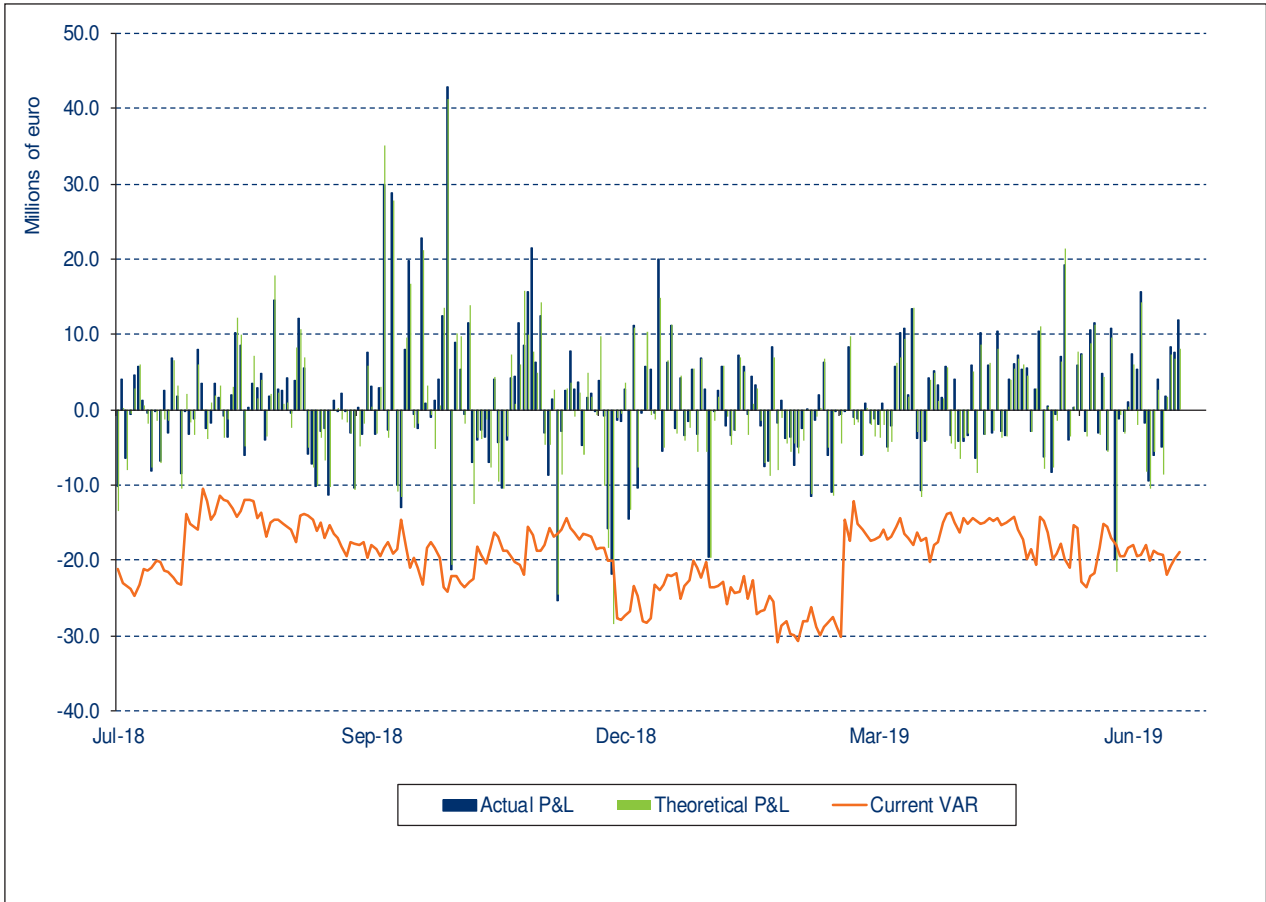
Backtesting in Intesa Sanpaolo

Over the last twelve months there have been no backtesting exceptions.



Backtesting in Banca IMI

Over the last twelve months there have been three backtesting exceptions. The breaches were due to the credit component of the portfolio, which was particularly affected by the volatility in the second half of 2018, and, in the more recent period, to the trend in interest rates.



BANKING BOOK

Market risk originated by the banking book arises primarily in the Parent Company and in the other main Group companies involved in retail and corporate banking. The banking book also includes exposure to market risks deriving from the equity investments in listed companies not fully consolidated, mostly held by the Parent Company and IMI Investimenti.

The internal system for measuring interest rate risk assesses and describes the effect of changes in interest rates on the economic value and the net interest income and identifies all significant sources of risk that affect the banking book:

- repricing risk: risk arising from maturity mismatches (for fixed-rate positions) and interest rate revision date mismatches (for floating-rate positions) of financial items due to parallel movements in the yield curve;
- yield curve risk: risk arising from maturity mismatches and interest rate revision date mismatches due to changes in the inclination and shape of the yield curve;
- basis risk: risk arising from imperfect correlation in the adjustment of lending and deposit rates of floating-rate instruments which may differ according to indexing parameters, rate revision method, indexing algorithm, etc. This risk arises as a result of non-parallel changes in market rates;
- option risk: risk due to the presence of automatic options or options that depend on the behaviour of the counterparty to the assets, liabilities and off-balance sheet instruments of the Group.

The following metrics are used to measure the interest rate risk generated by the banking book:

1. shift sensitivity of economic value (Δ EVE);
2. net interest income:
 - shift sensitivity of net interest income (Δ NII);
 - dynamic simulation of net interest income (NII);
3. Value at Risk (VaR).

The shift sensitivity of the economic value (or shift sensitivity of the fair value) measures the change in the economic value of the banking book and is calculated at individual cash flow level for each financial instrument, based on different instantaneous rate shocks and reflects the changes in the present value of the cash flows of the positions already in the balance sheet for the entire remaining duration until maturity (run-off balance sheet).

In measurements, capital items are represented based on their contractual profile, except for categories of instruments whose risk profiles are different from those contractually envisaged. In this respect, therefore, the choice was made to use a behavioural representation to calculate the risk measures. More specifically:

- for mortgages, statistical techniques are used to determine the probability of prepayment, in order to reduce the Group's exposure to interest rate risk (overhedging) and to liquidity risk (overfunding);
- for core deposits, a financial representation model is adopted aimed at reflecting the behavioural features of stability of deposits and partial and delayed reaction to market interest rate fluctuations, in order to stabilise net interest income both in absolute terms and in terms of variability over time;
- for the expected loss on loans, which represents the average cost of long-term loans, a shift in the discounting curve is envisaged, according to the aggregate credit risk levels by economic segment, in order to reduce this component in the cash flows.
- the cash flows used for both the contractual and behavioural profile are calculated at the contractual rate or at the FTP;

To determine the present value, a multi-curve system is adopted which has different discounting and forwarding curves according to the type of instrument and the tenor of its indexing. For the determination of shift sensitivity, the standard shock applied to all the curves is defined as a parallel and uniform shifting of +100 basis points of the curves.

In addition to the standard +100 scenario, the measurement of the economic value (EVE) is also calculated based on the 6 scenarios prescribed by the BCBS document and based on historical stress simulations aimed at identifying worst- and best-case scenarios.

The shift sensitivity of the net interest income quantifies the impact on short-term interest income of a parallel, instantaneous and permanent, shock to the interest rate curve.

Margin sensitivity is measured using a method that enables the estimation of the expected change in net interest income as a result of a shock to the curves produced by items subject to interest rate revision within a gapping period set at 12 months from the analysis date.

This measure highlights the effect of variations in market interest rates on the net interest income generated by the portfolio being measured, on a constant balance sheet basis, excluding potential effects resulting from the new operations and from assumptions on future changes in the mix of assets and liabilities and, therefore, it cannot be considered a forecast indicator of the future levels of the interest margin.

To determine changes in net interest income (Δ NII), standard scenarios of parallel rate shocks of +/-50 basis points are applied, in reference to a time horizon of twelve months.

Dynamic margin simulation analyses are also conducted that combine shifts in yield curves with changes in base and liquidity differentials, as well as changes in customer behaviour in different market scenarios.

Value at Risk is calculated as the maximum potential loss in the portfolio's market value that could be recorded over a 10-day holding period with a 99% confidence level (parametric VaR).

Besides measuring the equity portfolio, VaR is also used to consolidate exposure to financial risks of the various Group companies which perform banking book activities, thereby taking into account diversification benefits. Value at Risk calculation models have certain limitations, as they are based on the statistical assumption of the normal distribution of the returns and on the observation of historical data that may not be repeated in the future. Consequently, VaR results cannot guarantee that the possible future losses will not exceed the statistically calculated estimates.

Hedging of interest rate risk is aimed at (i) protecting the banking book from variations in the fair value of loans and deposits due to movements in the interest rate curve or (ii) reducing the volatility of future cash flows related to a particular asset/liability. The main types of derivative contracts used are interest rate swaps (IRS), overnight index swaps (OIS), cross-currency swaps (CCS) and options on interest rates stipulated with third parties or with other Group companies. The latter, in

turn, cover risk in the market so that the hedging transactions meet the criteria to qualify as IAS-compliant for consolidated financial statements.

Hedging activities performed by the Intesa Sanpaolo Group are recorded using various hedge accounting methods.

A first method refers to the fair value hedge of specifically identified assets and liabilities (microhedging), mainly consisting of bonds issued or acquired by Group companies and loans to customers. On the basis of the carved-out version of IAS 39, fair-value hedging is also applied for the macrohedging of the stable portion of demand deposits (core deposits) and on the already fixed portion of variable-rate loans and on a portion of fixed-rate loans. For this last type, an open-portfolio macrohedging model has been adopted according to a bottom-layer approach that, in accordance with the interest rate risk measurement method involving modelling of the prepayment phenomenon, is more closely correlated with risk management activity and asset dynamics.

Another hedging method used is the cash flow hedge, which has the purpose of stabilising interest flow on both variable-rate funding, to the extent that the latter finances fixed-rate investments, and on variable-rate investments to cover fixed-rate funding (macro cash flow hedges).

The Financial and Market Risks Head Office Department of the Parent Company is in charge of measuring the effectiveness of interest rate risk hedges for the purpose of hedge accounting, in compliance with the IAS/IFRS.

During 2019, no hedging activities have been performed to cover the price risk of the banking book.

The table below shows the changes in the main risk measures during the first half of 2019.

	1st half 2019			(millions of euro)	
	average	minimum	maximum	30.06.2019	31.12.2018
Shift Sensitivity of the Economic Value +100 bp	811	627	1,226	627	1,143
Shift Sensitivity of Net Interest Income -50bp	-993	-952	-1,031	-1,000	-928
Shift Sensitivity of Net Interest Income +50bp	958	914	985	958	886
Shift Sensitivity of Net Interest Income +100bp	1,872	1,786	1,926	1,866	1,759
Value at Risk - Interest Rate	103	74	126	126	91
Value at Risk - Equity investments in listed companies	65	57	75	65	52

Lastly, the table below shows a sensitivity analysis of the banking book to price risk, measuring the impact on Shareholders' Equity of a price shock of $\pm 10\%$ for the abovementioned quoted assets recorded in the HTCS category.

Price risk: impact on Shareholders' Equity

	(millions of euro)			
		1st quarter 2019 impact on shareholders' equity at 31.03.2019	2nd quarter 2019 impact on shareholders' equity at 30.06.2019	Impact on shareholders' equity at 31.12.2018
Price shock	10%	59	56	39
Price shock	-10%	-59	-56	-39

LIQUIDITY RISK

Liquidity risk is defined as the risk that the Bank may not be able to meet its payment obligations due to the inability to obtain funds on the market (funding liquidity risk) or liquidate its assets (market liquidity risk).

Intesa Sanpaolo's internal control and management system for liquidity risk is implemented within the Group Risk Appetite Framework and in compliance with the tolerance thresholds for liquidity risk approved in the system, which establish that the Group must maintain an adequate liquidity position in order to cope with periods of strain, including prolonged periods, on the various funding supply markets, also by establishing adequate liquidity reserves consisting of marketable securities and refinancing at Central Banks. To this end, a balance needs to be maintained between incoming and outgoing funds, both in the short and medium-long term. This goal is implemented by the Group Liquidity Risk Management Guidelines approved by the Corporate Bodies of Intesa Sanpaolo.

These guidelines contain the latest regulatory provisions on liquidity risk and illustrate the tasks of the various corporate functions, the rules and the set of control and management processes aimed at ensuring prudent monitoring of such risk, thereby preventing the emergence of crisis situations.

In particular, from an organisational standpoint, a detailed definition is prepared of the tasks assigned to the Board of Directors and reports are presented to senior management concerning certain important formalities such as the approval of measurement methods, the definition of the main assumptions underlying stress scenarios and the composition of early warning indicators used to activate emergency plans.

The departments of the Parent Company that are in charge of ensuring the correct application of the Guidelines are, in particular, the Group Treasury and Finance Head Office Department, responsible for liquidity management, and the Financial and Market Risks Head Office Department, directly responsible for measuring liquidity risk on a consolidated basis.

The Chief Audit Officer assesses the functioning of the overall structure of the control system monitoring the process for measuring, managing and controlling the Group's exposure to liquidity risk and verifies the adequacy and compliance of the process with the requirements established by the regulations. The results of the controls carried out are submitted to the Corporate Bodies, at least once a year.

With regard to liquidity risk measurement metrics and mitigation tools, in addition to defining the methodological system for measuring short-term and structural liquidity indicators, the Group also formalises the maximum tolerance threshold (risk appetite) for liquidity risk, the criteria for defining liquidity reserves and the rules and parameters for conducting stress tests.

The short-term liquidity is aimed at providing an adequate, balanced level of cash inflows and outflows the timing of which is certain or estimated to fall within a period of 12 months, while ensuring a sufficient liquidity buffer, available for use as the main mitigation tool for liquidity risk. To that end, and in keeping with the liquidity risk appetite, the system of limits consists of two short-term indicators for holding periods of one week (cumulative projected imbalance in wholesale operations) and of one month (Liquidity Coverage Ratio - LCR) respectively, in addition to a system of early warning indicators for maturities from 3 months to one year.

The cumulative projected wholesale imbalances indicator measures the Bank's independence from unsecured wholesale funding in the event of a freeze of the money market and aims to ensure financial autonomy, assuming the use on the market of only the highest quality liquidity reserves. The LCR, the minimum regulatory threshold for which is 100% after 1 January 2018, is aimed at strengthening the short-term liquidity risk profile, ensuring the holding of sufficient unencumbered high-quality liquid assets (HQLA) that can be easily and immediately converted into cash on the private markets to satisfy the short-term liquidity requirements (30 days) in a liquidity stress scenario, as defined by Delegated Regulation (EU) 2015/61.

The aim of the Intesa Sanpaolo Group's structural Liquidity Policy is to adopt the structural requirement provided for by the regulatory provisions of Basel 3: the Net Stable Funding Ratio (NSFR). This indicator is aimed at promoting the increased use of stable funding, to prevent medium/long-term operations from giving rise to excessive imbalances to be financed in the short term. To this end, it sets a minimum "acceptable" amount of funding exceeding one year in relation to the needs originating from the characteristics of liquidity and residual duration of assets and off-balance sheet exposures: this requirement will take on the minimum regulatory value of 100% by June 2021 following the recent publication in the Official Journal of the new CRD IV and CRR 2. In addition, the internal policy on structural liquidity also includes early warning indicators for maturities of more than 1 year, with particular attention to long-term gaps (> 5 years).

The Group Liquidity Risk Management Guidelines also envisage the time extension of the stress scenario for the LCR indicator, provided by the regulatory framework, measuring, for up to 3 months, the effect of specific acute liquidity tensions (at bank level) combined with a widespread and general market crisis. For this purpose, the internal management guidelines also envisage an alert threshold (Stressed soft ratio) for the LCR indicator up to 3 months, with the purpose of establishing an overall level of reserves covering greater cash outflows during a period of time that is adequate to implement the required operating measures to restore the Group to balanced conditions. Within this framework, the Group Treasury and Finance Department was officially entrusted with drawing up the Contingency Funding Plan (CFP), which contains the various lines of actions that can be activated in order to face potential stress situations, specifying the extent of the mitigating effects attainable in the short-term.

The Guidelines also establish methods for management of a potential liquidity crisis, defined as a situation of difficulty or inability of the Bank to meet its cash obligations falling due, without implementing procedures and/or employing instruments that, due to their intensity or manner of use, do not qualify as ordinary administration. By setting itself the objectives of safeguarding the Group's asset value and also guaranteeing the continuity of operations under conditions of extreme liquidity emergency, the Contingency Liquidity Plan ensures the identification of the early warning signals and their ongoing monitoring, the definition of procedures to be implemented in situations of liquidity stress, the immediate lines of action, and the intervention measures for the resolution of emergencies.

In the first six months of the year, the Group's liquidity position - supported by suitable high-quality liquid assets (HQLA) and the significant contribution from retail stable funding - remained within the risk limits set out in the current Group Liquidity Policy: both indicators, LCR and NSFR, were fully met and were already above the regulatory requirements. The Liquidity Coverage Ratio (LCR) of the Intesa Sanpaolo Group, measured according to Delegated Regulation (EU) no. 2015/61, amounted to an average of 162%. As at 30 June 2019, the eligible liquidity reserves for the Central Banks, including the reserves held with Central Banks (Cash and Deposits), amounted to a total of 191 billion euro (175 billion euro at the end of December 2018), of which 110 billion euro, net of haircut, was unencumbered (89 billion euro at the end of December 2018).

The HQLA component represented 60% of own reserves and 94% of the unencumbered reserves. The other eligible reserves mainly consist of retained self-securitisations.

The stress tests, when considering the high availability of liquidity reserves (liquid or eligible), yielded results in excess of the target threshold for the Intesa Sanpaolo Group, with a liquidity surplus capable of meeting extraordinary cash outflows for a period of more than 3 months.

Adequate and timely information regarding the development of market conditions and the position of the Bank and/or Group was provided to the corporate bodies and internal committees in order to ensure full awareness and manageability of the various risk factors.

INFORMATION ON FINANCIAL PRODUCTS

In line with the requests for utmost transparency made by supranational and national Supervisory Authorities, the following information is provided on the fair value measurement methods adopted, structured credit products, activities performed through Special Purpose Entities (SPE), leveraged transactions, hedge fund investments and transactions in trading derivatives with customers.

FAIR VALUE MEASUREMENT OF FINANCIAL ASSETS AND LIABILITIES, PRUDENT VALUATION AND INDEPENDENT PRICE VERIFICATION

The framework of financial measurement at fair value is based on three pillars: fair value measurement according to the IFRS, independent price verification (IPV) and prudent value measurement. The latter are established by the CRR - Capital Requirement Regulation. The paragraphs below describe the methods applied by the Intesa Sanpaolo Group to implement and use those elements.

Fair value of financial instruments

The methodologies for the fair value measurement of financial instruments, as well as any adjustments attributable to uncertainties in valuation, are governed by the Fair Value Policy of the Intesa Sanpaolo Group and are described in detail in the 2018 Annual Report, to which reference is made for more information.

IFRS 13 establishes a **fair value hierarchy** in which inputs to fair value measurement techniques are divided into three levels. That hierarchy assigns top priority to (unadjusted) quoted prices on active markets for identical assets or liabilities (level 1 data) and the lowest priority to unobservable inputs (level 3 data). In particular:

- Fair value level 1 applies when an instrument is measured directly on the basis of (unadjusted) quoted prices on active markets for identical assets or liabilities to which the entity has access on the measurement date.
- Fair value level 2 applies when a price has not been found on an active market and the instrument is measured according to valuation techniques, on the basis of observable market parameters, or of the use of parameters that are not observable but are supported and confirmed by market evidence, such as prices, spreads or other inputs (the comparable approach).
- Fair value level 3 applies when fair value is measured using various inputs, not all of which are directly drawn from observable market parameters, and which thus entail estimates and assumptions by the valuator.

If various inputs are used to measure the fair value of an asset or liability, classification in the hierarchy is determined on the basis of the lowest-level input used in measurement. When assigning a level in the fair value hierarchy, priority is given to the inputs of the valuation techniques rather than the valuation techniques themselves.

The attachment “Fair Value Hierarchy” of the Fair Value Policy defines, with regard to the respective financial instrument valuation models/inputs, the basic rules that market inputs must comply with in order to be classified as Level 2, and the significance thresholds which, when overrun, result in the assignment of Level 3.

For level 1 financial instruments, the current bid price is used for financial assets and the current ask price for financial liabilities, struck on the principal active market at the end of the reference period.

For financial instruments with a scarcely significant bid-ask spread or for financial assets and liabilities with offsetting market risks, mid-market prices are used (again referred to the last day of the reference period) instead of the bid or ask price.

The following are considered as level 1 financial instruments: contributed bonds (i.e. quoted on the EuroMTS circuit, or for which at least three bid and ask prices can be continuously derived from the main price contribution international platforms), contributed equities (i.e., quoted on the official market of reference), contributed harmonised mutual funds, spot exchange rates, derivatives for which quotations are available on an active market (for example, exchange traded futures and options) and hedge funds whose Net Asset Value (NAV) is available, according to the frequency established in the subscription contract, and in which assets classified as level 1 predominate among the assets invested in by the fund, as a percentage of the NAV, provided the level 3 instruments do not exceed 40%.

Conversely, all other financial instruments that do not belong to the above-described categories or that do not have the contribution level defined by the Fair Value Policy are not considered level 1 instruments.

When no listing on an active market exists or the market is not functioning regularly, that is when the market does not have a sufficient and continuous number of trades, and bid-ask spreads and volatility that are not sufficiently contained, the fair value of the financial instruments is mainly determined through the use of valuation techniques whose objective is the establishment of the price at which, in an orderly transaction, the asset is sold or the liability transferred between market participants, as at the measurement date, under current market conditions.

Such techniques include:

- the use of market values that are indirectly linked to the instrument to be measured, deriving from products with the same risk profile (level 2 inputs);
- valuations performed using – even partially – inputs not identified from parameters observed on the market, for which estimates and assumptions made by the valuator are used (level 3 inputs).

In case of level 2 inputs, the valuation is based on prices or credit spreads presumed from the official listing of instruments which are similar in terms of risk factors, using a given calculation methodology (valuation model). The use of this approach requires the identification of transactions on active markets in relation to instruments that, in terms of risk factors, are comparable with the instrument to be measured. Level 2 calculation methodologies reproduce prices of financial instruments quoted on active markets (model calibration) and do not contain discretionary parameters – parameters for which values may not be inferred from quotations of financial instruments present on active markets or fixed at levels capable of reproducing quotations on active markets – that significantly influence the final measurement.

The following are measured using level 2 input models:

- bonds without official quotations expressed by an active market and whose fair value is determined through the use of an appropriate credit spread which is estimated starting from contributed and liquid financial instruments with similar characteristics;

- loans whose fair value is determined through the use of an appropriate credit spread which is estimated starting from market data of financial instruments with similar characteristics;
- derivatives measured through specific models, fed by input parameters (such as yield, foreign exchange and volatility curves) observed on the market;
- structured credit products for which significant prices are not available and whose fair value is measured using valuation techniques that consider parameters which may be presumed from the market;
- equity instruments measured based on direct transactions, that is significant transactions on the stock registered in a time frame considered to be sufficiently short with respect to measurement date and in constant market conditions, using, therefore, the "relative" valuation models based on multipliers;
- hedge funds in which Level 2 assets predominate, as a percentage of the NAV, provided the Level 3 instruments do not exceed 40%.

In case of instruments classified as level 3, the calculation of the fair value is based on valuation models which consider input parameters not directly observable on the market, therefore implying estimates and assumptions on the part of the valuator. In particular, the valuation of the financial instrument uses a calculation methodology which is based on specific assumptions of:

- the development of future cash flows, which may be affected by future events that may be attributed probabilities presumed from past experience or on the basis of the assumed behaviour;
- the level of specific input parameters not quoted on active markets, for which information acquired from prices and spreads observed on the market is in any case preferred. Where this is not available, past data on the specific risk of the underlying asset or specialised reports are used (e.g. reports prepared by Rating agencies or primary market players).

The following are measured using this method:

- debt securities and complex credit derivatives (CDOs) included among structured credit products and credit derivatives on index tranches;
- hedge funds in which Level 3 assets predominate, as a percentage of the NAV, or in which Level 3 assets represent at least 40% of the NAV;
- funds, shareholding and other equity instruments measured using models based on discounted cash flows;
- loans whose fair value is determined through the use of a credit spread that does not meet the criteria to be considered level 2;
- some transactions in derivatives or structured bonds, measured using level 3 inputs.

Independent price verification (IPV)

Independent Price Verification (IPV) is "a process by which market prices or marking to model inputs are regularly verified for accuracy and independence" (Article 4(1.70) EU Regulation 575/2013), carried out "in addition to daily marking to market or marking to model [...] by a person or unit independent from persons or units that benefit from the trading book" (Article 105(8) EU Regulation 575/2013).

The Intesa Sanpaolo Group has structured an IPV process with 3 levels of control in line with the provisions of Bank of Italy Circular 285/2013, incorporated into the Integrated Internal Control System, which requires the risk management processes to be incorporated in the processes and methods for valuing the company activities, also for accounting purposes.

The Intesa Sanpaolo Group governs and formalises its independent price verification process through the Group Independent Price Verification Policy, which is described in detail in the 2018 Annual Report and to which reference is made for further information.

Prudent value of financial instruments

The framework of financial measurements is completed with the prudent valuation of financial instruments measured at fair value, which involves the calculation of additional valuation adjustments for prudential purposes, without impacts on the fair value calculated for accounting purposes in accordance with the IFRS. The prudent value corresponds to the exit price from the position with a level of certainty equal to 90%.

The Intesa Sanpaolo Group governs and formalises the measurement of the prudent value of financial instruments through the Group Prudent Value Policy, which is described in detail in the 2018 Annual Report and to which reference is made for further information.

Fair value hierarchy

Assets and liabilities designated at fair value on a recurring basis: fair value by level Excluding insurance companies

Assets / liabilities at fair value	30.06.2019			01.01.2019		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
1. Financial assets designated at fair value through profit or loss	20,949	29,683	2,727	11,037	28,462	2,616
a) Financial assets held for trading	20,612	28,728	433	10,748	27,655	403
of which: Equities	680	-	-	500	-	-
of which: quotas of UCI	634	2	43	913	2	47
b) Financial assets designated at fair value	-	195	-	-	208	-
c) Other financial assets mandatorily designated at fair value	337	760	2,294	289	599	2,213
of which: Equities	2	95	178	2	96	178
of which: quotas of UCI	335	116	1,319	267	-	1,334
2. Financial assets designated at fair value through other comprehensive income	59,024	6,907	414	53,527	6,399	543
of which: Equities	621	2,116	378	593	2,119	447
3. Hedging derivatives	-	3,371	13	-	2,983	10
4. Property and equipment	-	-	5,667	-	-	5,720
5. Intangible assets	-	-	-	-	-	-
Total	79,973	39,961	8,821	64,564	37,844	8,889
1. Financial liabilities held for trading	24,240	26,824	123	14,928	26,824	143
2. Financial liabilities designated at fair value	-	4	-	-	4	-
3. Hedging derivatives	-	10,728	3	-	7,216	5
Total	24,240	37,556	126	14,928	34,044	148

Excluding insurance companies, level 3 instruments, which allow for more discretion in fair value measurement, account for a limited portion of the financial assets portfolio equal to 6.9%.

As far as liabilities are concerned, level 3 instruments account for less than 1% of total liabilities.

Over 62% of financial assets designated at fair value (excluding the insurance segment) are determined based on market prices, and therefore without any discretion by the valuator.

In addition to the transfers relating to financial assets and liabilities designated at level 3 as detailed below, please note that the following transfers were made during the first half of 2019:

- from level 1 to level 2:
 - financial assets held for trading for 28 million euro (book value as at 30 June 2019);
 - financial assets designated at fair value through other comprehensive income for 22 million euro (book value as at 30 June 2019);
 - financial liabilities held for trading for 31 million euro (book value as at 30 June 2019);
- from level 2 to level 1:
 - financial assets held for trading for 595 million euro (book value as at 30 June 2019);
 - financial assets designated at fair value through other comprehensive income for 149 million euro (book value as at 30 June 2019);
 - financial liabilities held for trading for 936 million euro (book value as at 30 June 2019).

The transfers between fair value levels are determined by the trends in the observability of prices or market data used to measure the instruments and by the materiality of the unobservable inputs.

The transition from level 1 to level 2 is a consequence of the disappearance of an active market for that instrument assessed by analysing the reliability and the reciprocal consistency of the available prices according to the provisions of the Group's Fair Value Policy. Conversely, securities for which a mark-to-model measurement is performed using inputs that can be observed on the market – classified, therefore, as level 2 – are transferred to level 1 when the existence of an active market is identified.

Assets and liabilities designated at fair value on a recurring basis: fair value by level - Insurance companies

Assets / liabilities at fair value	30.06.2019			31.12.2018		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
1. Financial assets held for trading	210	15	47	231	11	47
<i>of which: Equities</i>	-	-	-	-	-	-
<i>of which: quotas of UCI</i>	57	-	47	61	-	47
2. Financial assets designated at fair value through profit or loss	79,012	83	281	73,920	121	273
<i>of which: Equities</i>	2,069	-	-	1,678	-	-
<i>of which: quotas of UCI</i>	72,300	-	18	67,729	-	19
3. Financial assets available for sale	75,111	2,707	1,606	71,254	2,286	1,382
<i>of which: Equities</i>	1,072	-	-	979	-	-
<i>of which: quotas of UCI</i>	9,881	-	1,606	10,256	1	1,382
4. Hedging derivatives	-	99	-	-	21	-
5. Property and equipment	-	-	-	-	-	-
6. Intangible assets	-	-	-	-	-	-
Total Caption 35	154,333	2,904	1,934	145,405	2,439	1,702
1. Financial liabilities held for trading	2	50	-	3	41	-
2. Financial liabilities designated at fair value through profit or loss	-	71,975	-	-	67,755	-
3. Hedging derivatives	-	-	-	-	1	-
Total Caption 15	2	72,025	-	3	67,797	-

Having regard to insurance companies, as shown in the table, level 3 instruments, which allow for more discretion in fair value measurement, account for a limited portion of the financial assets portfolio equal to 1%.

As far as liabilities are concerned, level 3 instruments account for less than 1% of total liabilities.

Around 97% of financial assets designated at fair value in the insurance segment are determined based on market prices, and therefore without any discretion by the valuator.

In addition to the transfers relating to financial assets and liabilities in the insurance segment designated at level 3 as detailed below, please note that the following transfers were made during the first half of 2019:

- from level 1 to level 2:
 - financial assets designated at fair value through profit and loss for 1 million euro (book value as at 30 June 2019);
 - financial assets available for sale for 96 million euro (book value as at 30 June 2019);
- from level 2 to level 1:
 - financial assets designated at fair value through profit and loss for 1 million euro (book value as at 30 June 2019);
 - financial assets available for sale for 558 million euro (book value as at 30 June 2019);

The transfers between fair value levels are determined by the trends in the observability of prices or market data used to measure the instruments and by the materiality of the unobservable inputs.

The transition from level 1 to level 2 is a consequence of the disappearance of an active market for that instrument assessed by analysing the reliability and the reciprocal consistency of the available prices according to the provisions of the Group's Fair Value Policy. Conversely, securities for which a mark-to-model measurement is performed using inputs that can be observed on the market – classified, therefore, as level 2 – are transferred to level 1 when the existence of an active market is identified.

Half-yearly changes in assets designated at fair value on a recurring basis (level 3)

Excluding insurance companies

	Assets designated at fair value through profit or loss				Financial assets designated at fair value through other comprehensive income	Hedging derivatives	Property and equipment	Intangible assets
	TOTAL	of which: a) Financial assets held for trading	of which: b) Financial assets designated at fair value	of which: c) Other financial assets mandatorily designated at fair value				
	(millions of euro)							
1. Initial amount	2,616	403	-	2,213	543	10	5,700	-
2. Increases	572	210	-	362	29	3	80	-
2.1 Purchases	345	191	-	154	5	-	10	-
2.2 Gains recognised in:	96	15	-	81	13	3	3	-
2.2.1 Income statement	96	15	-	81	6	3	-	-
- of which capital gains	65	15	-	50	6	-	-	-
2.2.2 Shareholders' equity	-	X	X	X	7	-	3	-
2.3 Transfers from other levels	13	2	-	11	1	-	-	-
2.4 Other increases	118	2	-	116	10	-	67	-
3. Decreases	-461	-180	-	-281	-158	-	-113	-
3.1 Sales	-136	-96	-	-40	-28	-	-14	-
3.2 Reimbursements	-53	-3	-	-50	-3	-	-	-
3.3 Losses recognized in:	-95	-40	-	-55	-5	-	-51	-
3.3.1 Income statement	-95	-40	-	-55	-	-	-51	-
- of which capital losses	-83	-40	-	-43	-	-	-	-
3.3.2 Shareholders' equity	-	X	X	X	-5	-	-	-
3.4 Transfers to other levels	-138	-38	-	-100	-100	-	-	-
3.5 Other decreases	-39	-3	-	-36	-22	-	-48	-
4. Final amount	2,727	433	-	2,294	414	13	5,667	-

Half-yearly changes in assets designated at fair value on a recurring basis (level 3) - Insurance companies

	Assets designated at fair value through profit or loss			Hedging derivatives	Property and equipment	Intangible assets
	Financial assets held for trading	Financial assets designated at fair value through profit or loss	Financial assets available for sale			
	(millions of euro)					
1. Initial amount	47	273	1,382	-	-	-
2. Increases	-	14	362	-	-	-
2.1 Purchases	-	-	264	-	-	-
2.2 Gains recognised in:	-	1	48	-	-	-
2.2.1 Income statement	-	1	-	-	-	-
- of which capital gains	-	-	-	-	-	-
2.2.2 Shareholders' equity	X	X	48	-	-	-
2.3 Transfers from other levels	-	-	-	-	-	-
2.4 Other increases	-	13	50	-	-	-
3. Decreases	-	-6	-138	-	-	-
3.1 Sales	-	-	-79	-	-	-
3.2 Reimbursements	-	-3	-	-	-	-
3.3 Losses recognized in:	-	-1	-14	-	-	-
3.3.1 Income statement	-	-1	-3	-	-	-
- of which capital losses	-	-4	-	-	-	-
3.3.2 Shareholders' equity	X	X	-11	-	-	-
3.4 Transfers to other levels	-	-	-	-	-	-
3.5 Other decreases	-	-2	-45	-	-	-
4. Final amount	47	281	1,606	-	-	-

Half-yearly changes in liabilities designated at fair value on a recurring basis (level 3)
(Excluding insurance companies)

	Financial liabilities held for trading	Financial liabilities designated at fair value	(millions of euro) Hedging derivatives
1. Initial amount	143	-	5
2. Increases	4	-	-
2.1 Issues	-	-	-
2.2 Losses recognised in:	3	-	-
2.2.1 Income statement	3	-	-
- of which capital losses	3	-	-
2.2.2 Shareholders' equity	X	-	-
2.3 Transfers from other levels	1	-	-
2.4 Other increases	-	-	-
3. Decreases	-24	-	-2
3.1 Reimbursements	-	-	-
3.2 Repurchases	-	-	-
3.3 Gains recognised in:	-20	-	-2
3.3.1 Income statement	-20	-	-2
- of which capital gains	-20	-	-2
3.3.2 Shareholders' equity	X	-	-
3.4 Transfers to other levels	-2	-	-
3.5 Other decreases	-2	-	-
4. Final amount	123	-	3

Half-yearly changes in liabilities designated at fair value on a recurring basis (level 3)
(Insurance companies)

There are no level 3 financial liabilities for Insurance companies

Assets and liabilities not designated at fair value or designated at fair value on a non-recurring basis
(Excluding insurance companies)

Assets/liabilities not measured at fair value or measured at fair value on a non-recurring basis	30.06.2019		31.12.2018	
	Book value	Fair value	Book value	Fair value
1. Financial assets measured at amortised cost	491,435	498,614	476,503	479,394
2. Investment property	-	-	-	-
3. Non-current assets held for sale and discontinued operations	803	803	1,297	1,297
Total	492,238	499,417	477,800	480,691
1. Financial liabilities measured at amortised cost	533,203	533,911	513,775	512,911
2. Liabilities associated with non-current assets	254	254	258	258
Total	533,457	534,165	514,033	513,169

Assets and liabilities not designated at fair value or designated at fair value on a non-recurring basis - Insurance companies

Assets/liabilities not measured at fair value or measured at fair value on a non-recurring basis	(millions of euro)			
	30.06.2019		31.12.2018	
	Book value	Fair value	Book value	Fair value
1. Investments held to maturity	-	-	-	-
2. Due from banks	537	537	922	923
3. Loans to customers	31	31	30	31
4. Investment property	-	-	-	-
5. Non-current assets held for sale and discontinued operations	-	-	-	-
Total Caption 45	568	568	952	954
1. Due to banks	3	3	4	4
2. Due to customers	88	87	68	67
3. Securities issued	765	765	738	738
4. Liabilities associated with non-current assets	-	-	-	-
Total Caption 15	856	855	810	809

Sensitivity analysis for financial assets and liabilities measured at level 3

As required by IFRS 13, for the financial assets and liabilities measured at level 3 the following table lists the effects of a change in one or more non-observable parameters used in the valuation techniques adopted to determine the fair value.

Financial assets/liabilities	Non-observable parameters	Sensitivity (thousands of euro)	Change in non-observable parameter
Securities at FVTPL and Securities at FVTOCI	Credit spread	-262	1 bp
Securities at FVTPL and Securities at FVTOCI	Correlation	-45	1%
Securities at FVTPL and Securities at FVTOCI	CPR	-10	1%
Securities at FVTPL and Securities at FVTOCI	Recovery rate	-379	-1%
OTC Derivatives - Interest Rates	Correlation for spread options between swap rates	-83	0.10
OTC Derivatives - Equity	Correlation between underlying equity baskets	-77	0.10
OTC Derivatives - Equity	Historical volatility	-448	10%
OTC Derivatives - Equity CPPI	Historical correlation	-188	0.10

Information on “Day one profit/loss”

Under IFRS 9, financial instruments shall be initially recognised at fair value. The fair value of a financial instrument at initial recognition is normally the “transaction price”, i.e. the fair value of the consideration given or received in relation to, respectively, financial assets and liabilities.

The fact that, upon initial recognition, the fair value of a financial instrument coincides with the transaction price is always intuitively verifiable in the case of transactions falling under level 1 of the fair value hierarchy. Also in the case of level 2, which is based on quotes that can be derived indirectly from the market (Comparable Approach), the fair value and the price often coincide upon initial recognition. Any differences between the price and the fair value are usually allocated to the so-called commercial margins, which are taken to the income statement when the financial instrument is initially measured.

Conversely, with respect to level 3 instruments, which have more discretion in fair value measurement, no definite reference benchmark is available to compare the transaction price with. For the same reason, the calculation of any commercial margin to be taken to the income statement is also difficult. In this event, the instrument is always initially recognised at the transaction cost. Subsequent measurement shall not include the difference between cost and fair value identified upon initial recognition (also defined as Day-One-Profit - DOP).

This difference shall be recognised in the income statement only when it arises from changes of the factors over which market participants base their valuations when fixing prices (including the time effect). Where the instrument has a definite maturity and no model is available to monitor the changes to the factors over which prices are based, the DOP can be recognised in the income statement systematically over the life of such instrument.

When a level 3 instrument is reclassified to level 2, the residual deferred Day-One-Profits are recognised in the income statement. Similarly, in the event of “on-the-book” transactions falling under the Bank’s investing activities, the Day-One-Profits earned on level 3 transactions (including in the above “on-the-book” management) are taken to the income statement when the Group entity (the investment bank) carries out transactions which substantially eliminate the risks of the level 3 instrument which generated the DOP.

The above regulation applies only to those instruments which fall in one of the classes which can be recognised at fair value through profit and loss (Fair Value Option and Trading Book). Indeed, only for the latter, the difference between the transaction price and the fair value would be taken to the income statement upon initial recognition.

The following table shows the changes in the DOP amount deferred in the balance sheet, indicating the portion taken to the income statement.

(millions of euro)

<hr/>	
1. Initial amount	1
2. Increases	-
2.1 New transactions	-
3. Decreases	-
3.1 Releases to the income statement	-
4. Final amount	1
<hr/>	

INFORMATION ON STRUCTURED CREDIT PRODUCTS

The risk exposure in structured credit products, which amounted to 2,018 million euro as at 31 December 2018, came to 2,974 million euro as at 30 June 2019, showing a net increase of 956 million euro. The exposure includes investments in ABSs (asset-backed securities) of 1,819 million euro, in CLOs (collateralised loan obligations) of 1,073 million euro and, to a residual extent, in CDOs (collateralised debt obligations) of 82 million euro, subject to constant, gradual disposals, without any plans for additional transactions.

Accounting categories	Exposure as at 30.06.2019			Total	31.12.2018	(millions of euro) changes	
	Collateralized Loan Obligations	Asset Backed Securities	Collateralized Debt Obligations			absolute	%
Financial assets held for sale	319	915	-	1,234	1,031	203	19.7
Financial assets mandatorily measured at fair value	-	28	-	28	63	-35	-55.6
Financial assets measured at fair value through other comprehensive income	389	740	-	1,129	724	405	55.9
Financial assets measured at amortised cost	365	136	82	583	200	383	
Total	1,073	1,819	82	2,974	2,018	956	47.4

In this disclosure structured credit products include debt securities held by the Group divided into tranches upon issue consisting of various degrees of subordination and not issued within the framework of transactions originated by entities of the Intesa Sanpaolo Group or by public entities, in addition to transactions whereby the Group finances its corporate and financial institution customers.

The strategy for transactions in structured credit products involved investments aimed at exploiting market opportunities, on the one hand, and disposals of the portfolio, mainly referring to positions which at the time were affected by the financial crisis, on the other hand.

The exposure in funded and unfunded ABSs/CLOs measured at fair value rose from 1,818 million euro in December 2018 to 2,391 million euro in June 2019, a net increase of 573 million euro attributable to Banca IMI and, only to a marginal extent, to the Parent Company due to the higher level of investments made compared to the disposals in the portfolio of assets measured at fair value through other comprehensive income and of financial assets held for trading. The portfolio mandatorily measured at fair value was only subject to sales and redemptions.

The exposure in securities classified as assets measured at amortised cost rose from 200 million euro in December 2018 to 583 million euro in June 2019, also due to the higher level of investments made in the period by Banca IMI.

The investments made by Banca IMI in the portfolio measured at fair value and the portfolio measured at amortised cost consisted equally of ABSs with underlying residential mortgages and CLOs with mainly AA ratings.

From the perspective of the income statement, a profit of +24 million euro was posted for the first half of 2019, against the +7 million euro for the first six months of 2018.

Specifically, as at 30 June 2019, the profits (losses) on trading - caption 80 of the income statement - for the exposures in funded and unfunded CLOs/ABSs amounted to +8 million euro, compared with a nil result in the first half of 2018.

The profits (losses) from financial assets mandatorily measured at fair value amounted to +14 million euro (+4 million euro in the first half of 2018) and primarily related to sales of funded and unfunded ABS positions in the Parent Company's loan portfolio, which were reclassified in 2018 into the new accounting category upon First-Time Adoption (FTA) of IFRS 9.

The exposures to funded and unfunded ABSs/CLOs in securities classified as assets measured at fair value through other comprehensive income primarily refer to the subsidiary Banca IMI and recorded a net increase in fair value of +1 million euro in the first half of 2019 through a shareholders' equity reserve (from a nil reserve at the end of December 2018 to a reserve of +1 million euro in June 2019); there was also an impact of +1 million euro from sales made in the first half of 2019, a similar result to that seen in the first half of 2018.

Valuation impacts of 1 million euro were recognised on the securities classified as assets measured at amortised cost in the first half of 2019 (the impact in the first half of 2018 was +2 million euro).

With regard to the monoline and non-monoline packages, as in 2018, there were no positions held in 2019.

Income statement results broken down by accounting category	30.06.2019			Total	30.06.2018	(millions of euro) changes	
	Collateralized Loan Obligations	Asset Backed Securities	Collateralized Debt Obligations			absolute	%
Financial assets held for sale	2	6	-	8	-	8	-
Financial assets mandatorily measured at fair value	-	14	-	14	4	10	
Financial assets measured at fair value through other comprehensive income	-	1	-	1	1	-	-
Financial assets measured at amortised cost	1	-	-	1	2	-1	-50.0
Total	3	21	-	24	7	17	

INFORMATION ON ACTIVITIES PERFORMED THROUGH SPECIAL PURPOSE ENTITIES (SPES)

For the purpose of this analysis, legal entities established to pursue a specific, clearly defined and limited objective (raising funds on the market, acquiring/selling/managing assets both for asset securitisations, acquisition of funding through self-securitisations and the issue of covered bonds, developing and/or financing specific business initiatives, undertaking leveraged buy-out transactions, or managing credit risk inherent in an entity's portfolio) are considered Special Purpose Entities.

The sponsor of the transaction is normally an entity which requests the structuring of a transaction that involves the SPE for the purpose of achieving certain objectives. In some cases the Bank is the sponsor and establishes a SPE to achieve one of the objectives cited above.

For the SPE categories identified as not consolidated structured entities, no amendments are recorded to the criteria based on which the Intesa Sanpaolo Group decides on whether to include the companies in the scope of consolidation, compared to the information already provided in the 2018 financial statements.

In the first half of the year, under the programme guaranteed by ISP OBG, the securities of the 13th and 14th series were redeemed in advance in February for a total of 2.750 billion euro and two new series, the 32nd and 33rd, were concurrently issued for an amount of 1.650 billion euro each, with a duration of 5 and 13 years, respectively.

In June, three additional new series of securities were issued: the 34th and 35th, for an amount of 1.6 billion euro each, and the 36th series for 1.8 billion euro, with a duration of 8, 10 and 14 years respectively.

The securities, all floating rate, are listed on the Luxembourg Stock Exchange and rated A (High) by DBRS, were subscribed by the Parent Company and are eligible with the Eurosystem.

With regard to the covered bond issue programme guaranteed by ISP CB Pubblico, in January the 13th series was partially redeemed (for an amount of 600 million euro), bringing the nominal amount to 1.050 million euro.

Under the covered bond issue programme guaranteed by ISP CB Ipotecario, the 25th series was placed on the institutional market in March. The public issue of 1 billion euro, with a fixed rate coupon of 0.50% and a 5-year maturity, is listed on the Luxembourg Stock Exchange and has a Moody's rating of Aa3.

The 26th series was issued in April for 500 million euro: it is a floating-rate bond with 9-year maturity, with a Moody's Aa3 rating, which was fully subscribed by the Parent Company for Eurosystem refinancing operations.

INFORMATION ON LEVERAGED FINANCE TRANSACTIONS

In May 2017, the ECB published specific Guidance on Leveraged Transactions, which applies to all significant entities subject to direct supervision by the ECB. The declared purpose of the regulations is to strengthen company controls over "leveraged" transactions, where such transactions increase globally and in the context of a highly competitive market, marked by a long period of low interest rates and the resulting search for yields.

The scope identified in the ECB Guidance includes exposures in which the borrower's level of leverage, measured as the ratio of total financial debt to EBITDA, is greater than 4, in addition to exposures to parties whose majority of capital is held by one or more financial sponsors. Moreover, counterparties with Investment Grade ratings, individuals, credit institutions, companies in the financial sector in general, public entities, non-profit entities, as well as counterparties with credit facilities below a certain materiality threshold (5 million euro), Retail SME counterparties and Corporate SME counterparties if not owned by financial sponsors, are explicitly excluded from the scope of the Leveraged Transactions. Specialised lending transactions (project finance, real estate, object financing and commodities financing) and certain other types of credit, such as trade finance operations, are also excluded.

As at 30 June 2019, for the Intesa Sanpaolo Group, the transactions that meet the definition of Leveraged Transactions in the ECB Guidance amounted to 22.6 billion euro, relating to approximately 2,200 credit lines (as at 31 December 2018 the amount was 22.4 billion euro, relating to around 2,900 credit lines).

In accordance with the requirements of the ECB Guidance, a specific limit for the outstanding stock of leveraged transactions was submitted for approval to the Board of Directors, within the framework of the 2019 Credit Risk Appetite.

INFORMATION ON INVESTMENTS IN HEDGE FUNDS

The Hedge Fund portfolio as at 30 June 2019 amounted to 122 million euro in the trading book and approximately 150 million euro in the banking book, compared to 146 million euro and 88 million euro recognised in December 2018. The investments allocated to the banking book are recognised under financial assets mandatorily measured at fair value and relate to investments made in funds that have medium/long-term investment strategies and redemption times that are longer than those of UCITS (Undertakings for Collective Investment in Transferable Securities) funds.

During the first half of 2019, the reduction of the trading book continued through distributions and redemptions, with a consequent reduction in the risk level of the exposure. In further detail, total redemptions in the first six months of the year amounted to approximately 24 million euro.

In the banking book, the increase in the exposure was due to new investments totalling approximately 55 million euro and to the increase in certain already existing positions for a total of approximately 27 million euro, set against sale transactions of approximately 20 million euro.

The income statement effect for the profits (losses) on trading - caption 80 of the income statement - at the end of June 2019 was positive for approximately 2 million euro.

The income statement effect recognised in the net profit (loss) on financial assets mandatorily measured at fair value - caption 110 of the income statement - at the end of June 2019 was a profit of almost 3 million euro.

Both positive results were mainly due to a general improvement in the valuations of the funds in the portfolio.

As a whole, the current strategy of the portfolio remains prudent, while waiting for any market opportunities to arise.

INFORMATION ON TRADING TRANSACTIONS IN DERIVATIVES WITH CUSTOMERS

Considering relations with customers only, as at 30 June 2019, the Intesa Sanpaolo Group, in relation to derivatives trading with retail customers, non-financial companies and public entities (therefore excluding banks, financial and insurance companies), presented a positive fair value, not having applied netting agreements, of 8,330 million euro (6,602 million euro as at 31 December 2018). The notional value of these derivatives totalled 60,542 million euro (57,047 million euro as at 31 December 2018). In particular, the notional value of plain vanilla contracts was 55,497 million euro (53,501 million euro as at 31 December 2018), while that of structured contracts was 5,045 million euro (3,546 million euro as at 31 December 2018).

Please note that the positive fair value of contracts outstanding with the 10 customers with the highest exposures came to 5,527 million euro (4,452 million euro as at 31 December 2018), of which 251 million euro (311 million euro as at 31 December 2018) referred to structured contracts.

Conversely, the negative fair value referring to total contracts outstanding, determined with the same criteria, for the same types of contracts and with the same counterparties, totalled 1,400 million euro as at 30 June 2019 (1,412 million euro as at 31 December 2018). The notional value of these derivatives totalled 21,537 million euro (24,649 million euro as at 31 December 2018). In particular, the notional value of plain vanilla contracts was 16,986 million euro (21,822 million euro as at 31 December 2018), while that of structured contracts was 4,551 million euro (2,827 million euro as at 31 December 2018). The fair value of derivative financial instruments entered into with customers was determined considering, as for all other OTC derivatives, the creditworthiness of the single counterparty ("Bilateral Credit Value Adjustment"). With regard to contracts outstanding as at 30 June 2019, this led to a negative effect of 37 million euro being recorded under "Profits (Losses) on trading" in the income statement.

* * *

As regards the methodologies used in determining the fair value of financial instruments, see the Notes to the 2018 Financial Statements and the specific paragraphs of the section on accounting policies. Please note that contracts made up of combinations of more elementary derivative instruments are considered "structured" and that the aforesaid figures do not include fair value of derivatives embedded in structured bond issues as well as the relative hedges agreed by the Group.

OPERATIONAL RISK

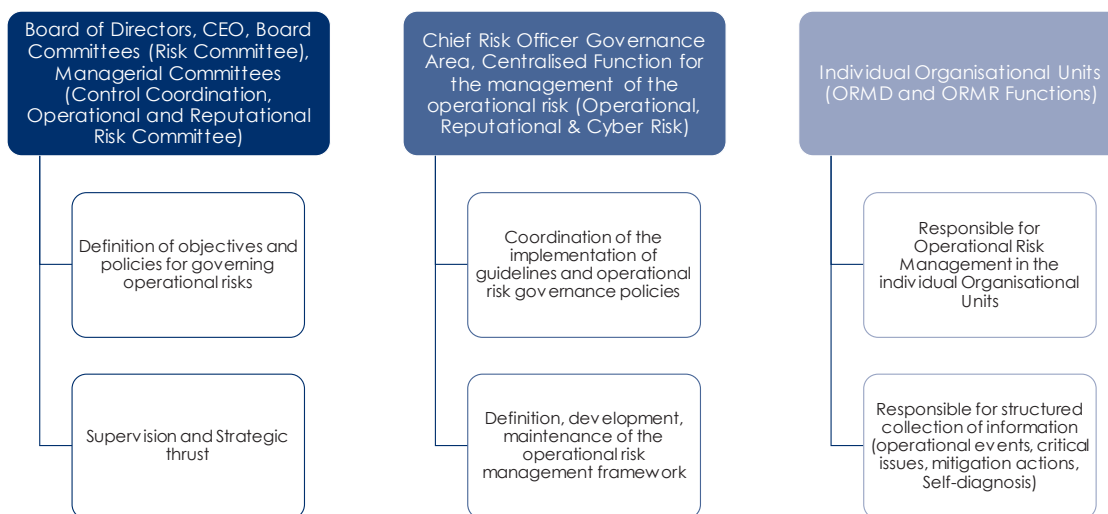
Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk includes legal risk and compliance risk, model risk, ICT risk and financial reporting risk; strategic and reputational risk are not included.

The Intesa Sanpaolo Group adopts an undertaking and management strategy of operational risk based on prudent management principles and aimed at guaranteeing long-term solidity and continuity for the company. In addition, the Group pays particular attention to achieving an optimal balance between growth and profitability and the resulting risks.

In line with these objectives, the Intesa Sanpaolo Group has long since established an overall operational risk management framework, by setting up a Group policy and organisational processes for measuring, managing and controlling operational risk.

Governance Model

The monitoring of the Intesa Sanpaolo Group's Operational Risk Management involves Bodies, Committees and structures that interact with different responsibilities and roles in order to create an effective operational risk management system that is closely integrated into the decision-making processes and the management of company operations.



Group Operational Risk Management Process

The Intesa Sanpaolo Group's operational risk management process is divided into the following phases:

Identification

The identification phase involves:

- the structured collection and timely updating of the data on operational events, decentralised to the Organisational Units;
- the detection of critical issues;
- the performance of the annual self-diagnosis process, the annual process through which the Organisational Units identify their level of exposure to operational risk by assessing the level of control of the elements characterising their business environment (Business Environment Evaluation, VCO) and estimating potential losses in the event of potentially harmful operational events (Scenario Analysis, SA);
- the identification of potential operational risks arising from the introduction of new products and services, the launch of new activities and the entry in new markets, as well as risks associated with outsourcing;
- the analysis of operational events and indicators originating from external consortia (O.R.X. - Operational Riskdata eXchange Association);
- the identification of operational risk indicators (including ICT and cyber risks, compliance risks, etc.) by the individual Organisational Units.

Measurement and assessment

Measurement is the transformation, using a dedicated model, of the elementary information (internal and external operational loss data, Scenario Analyses and Business Environment Evaluations) into synthetic risk measures. These measures present an adequate detail to allow complete knowledge of the Group's overall risk profile and to allow the quantification of capital at risk for the Group's units.

Monitoring and control

The monitoring of operational risks consists of the analysis and structured organisation of the results obtained from the identification and/or measurement in order to verify and control the evolution over time of the exposure to operational risk (including ICT and cyber risk) and to prevent the occurrence of harmful events.

Mitigation

Mitigation actions, defined on the basis of the results of the identification, measurement and monitoring, consist of:

- the identification, definition and implementation of risk mitigation and transfer activities, in accordance with the established risk appetite;
- the analysis and acceptance of residual operational risks;
- the rationalisation and optimisation, from a cost/benefit perspective, of insurance coverage and any other forms of risk transfer adopted by the Group.

In this regard, in addition to benefiting from a traditional insurance programme (to protect against offences such as employee infidelity, theft and damage, transport of valuables, computer fraud, forgery, cyber-crimes, fire and earthquake, and third-party liability), the Group has taken out an insurance coverage policy named Operational Risk Insurance Programme, in compliance with the requirements established by the regulations and to have access to the capital benefits provided for by the policy, which provides specific cover, significantly increasing the limits and transferring the risk of significant operational losses to the insurance market.

In addition, with respect to risks relating to real property and infrastructure, with the aim of containing the impacts of phenomena such as catastrophic environmental events, situations of international crisis, and social protest events, the Group may activate its business continuity solutions.

Communication

Communication consists of setting up adequate information flows related to the management of operational risks between the various actors involved, in order to enable the monitoring of the process and provide adequate knowledge of the exposure to those risks.

Internal model for the measurement of operational risk

The Intesa Sanpaolo Group's internal model for calculating capital absorption (the "advanced measurement approach" or "AMA") is designed to combine all the main sources of quantitative information (operational losses: internal and external events) and qualitative information (Self-diagnosis: Scenario Analysis and Business Environment Evaluation).

Capital-at-risk is therefore identified as the minimum amount at Group level required to bear the maximum potential loss (worst case). It is estimated using a Loss Distribution Approach model (actuarial statistical model to calculate the Value-at-risk of operational losses), applied on quantitative data and the results of the scenario analysis assuming a one-year estimation period, with a confidence level of 99.90%. The methodology also applies a corrective factor, which derives from the qualitative analyses of the risk level of the operational environment (VCO), to take into account the effectiveness of internal controls in the various Organisational Units.

The internal model's insurance mitigation component was approved by the Bank of Italy in June 2013 with immediate effect of its benefits on operations and on the capital requirements.

For regulatory purposes, the Group adopts the advanced measurement approach, in partial use with the standardised (TSA) and basic approaches (BIA), to determine the capital requirement.

The AMA approach is adopted by Intesa Sanpaolo SpA, Mediocredito, belonging to the Banca dei Territori Division, the main companies in the Corporate and Investment Banking, Private Banking and Asset Management divisions, VUB Banka and PBZ Banka.

The capital absorption resulting from this approach amounts to 1,468 million euro as at 30 June 2019, up modestly from 1,414 million euro as at 31 December 2018.

The former Banca Prossima SpA and Banca Apulia SpA, merged into Intesa Sanpaolo SpA in the last quarter, have been included within the AMA scope.

Legal risks

Legal risks are thoroughly analysed by the Parent Company and Group companies. Provisions are made to the allowances for risks and charges in the event of disputes for which it is probable that funds will be disbursed and where the amount of the disbursement may be reliably estimated.

As at 30 June 2019, there were a total of about 18,000 disputes pending (excluding those involving Risanamento S.p.A., which is not subject to management and coordination by Intesa Sanpaolo) with a total remedy sought of 5,433 million euro and allowances of around 609 million euro to cover "likely" payments.

No new significant legal disputes arose during the half year.

For the main pending disputes, the significant developments in the first half of 2019 are described below, while details of the other disputes are provided in the Notes to the 2018 Annual Report.

ENPAM lawsuit – The deadline for the filing of the court-appointed expert report was extended to 28 February 2020 (due to the need for additional research), and the hearing for the examination of the report was set for 12 March 2020.

In the meantime, at the invitation of the court-appointed expert, ENPAM and some of the defendants – including Intesa Sanpaolo (which took over in the proceedings as the absorbing company of Cassa di Risparmio di Firenze) – declared their willingness to consider a settlement solution, but have not yet reached an agreement. In any event, a provision has been made for an amount corresponding to the contribution to the settlement that Intesa Sanpaolo has agreed to pay, which is much lower than the total remedy sought by ENPAM.

Administrative and judicial proceedings against Banca IMI Securities Corp. of New York

With regard to the investigation started in October 2016 by the Antitrust Division of the Department of Justice (DoJ), the procedure was concluded in May 2019, on the basis of a Plea Agreement pursuant to the Federal Rules of Criminal Procedure, according to which IMI SEC has paid a criminal fine of USD 2,207,107.00 on the basis of a violation of the Sherman Antitrust Act, plus a USD 400 special assessment.

US Authorities significantly appreciated the cooperation provided within the overall investigation. The overall paid amount had been already fully provisioned, therefore it does not impact the 2019 balance sheet.

Dargent lawsuit – The claim was filed before a French Court in 2001 by the trustee in bankruptcy for the bankruptcy of the real estate entrepreneur Philippe Dargent, which made a request to the Bank for compensation of 55.6 million euro for the alleged “improper financial support” provided to the entrepreneur. The claim of the trustee in bankruptcy has consistently been rejected by the courts of different instance which dealt with the case over the last 17 years, until the Court of Colmar, on 23 May 2018, ordered the Bank to pay compensation of around 23 million euro (equal to the insolvency liabilities, minus the bank’s credit claim and the proceeds from the sale of several assets). An appeal against the Court of Colmar ruling has been lodged with the French Court of Cassation. The amount of the payment ordered has been temporarily deposited with the the appropriate “*Caisse des Reglemens Pecuniaires des Avocats*”. Following the exchange of defence briefs in early 2019 and based on the recently completed in-depth analysis carried out also together with the lawyers assisting the Bank, the risk of a partial payment is considered as probable.

Tax litigation

The Group’s tax litigation risks are covered by adequate provisions to the allowances for risks and charges.

As at 30 June 2019, Intesa Sanpaolo had pending tax litigation (for tax, penalties and interest) for a total amount of 81 million euro (222 million euro as at 31 December 2018), considering both administrative and judicial proceedings at various instances. In relation to these proceedings, the actual risks were quantified at 33 million euro (51 million euro as at 31 December 2018).

The figure for the Parent Company also includes the effects of the mergers, during the half year, of Cassa di Risparmio di Firenze S.p.A., Cassa di Risparmio in Bologna S.p.A. and Banca Apulia S.p.A., which led to an increase of approximately 12 million euro in disputed tax claims and 5 million euro in the allowance for tax litigation.

The reduction in the total claim amount was due to the settlement of numerous disputes through the so-called “tax amnesty”, with a cost already allocated as at 31 December 2018 of less than 15 million euro (representing around 10% of the claim amount).

With regard to new cases, no significant claims arose during the first six months of the year, except for the assessment notices for IRES and IRAP for the tax years 2014 and 2015 served by the Lombardy Regional Revenue Office - Large Taxpayers Office on Intesa Sanpaolo Private Banking and on the Parent Company, as the consolidating entity, which are discussed below.

With regard to the Parent Company, please note that the Provincial Revenue Office of Florence is also conducting an audit, for the years 2014 and 2015, on an IT services company sold to third parties at the end of 2017, which in those years operated in the form of a consortium company with a shareholding structure composed of companies of the Intesa Sanpaolo Group. The requests for clarification are focusing on the VAT exemption for services provided to the consortium companies in accordance with Article 10, paragraph 2, of Presidential Decree no. 633 of 1972. For the year 2014, the company – in agreement and in coordination with Intesa Sanpaolo – has prepared a reply to the questionnaire received and has started discussions with the Italian Revenue Agency, which has not yet made any claims.

With regard to the Intesa Sanpaolo branches located abroad, a VAT tax audit is underway on the London branch for the years 2016, 2017 and 2018, as well as an audit on federal direct taxes at the New York branch for the tax period 2016. At the moment, no claims have been made.

At the Group’s other Italian companies, tax disputes totalled 73 million euro as at 30 June 2019 (139 million euro as at 31 December 2018), covered by specific provisions of 16 million euro (47 million euro in the 2018 financial statements). The decrease in both claims and provisions was partly due to the merger of the above-mentioned banks into Intesa Sanpaolo and mostly due to the use of the so-called “tax amnesty” by Banca IMI, Mediocredito Italiano, Intesa Sanpaolo Vita and Fideuram.

Fideuram settled its dispute concerning Euro-Trésorerie for the years 2014 to 2017 arising from the tax audit report served on 11 October 2018 by the Tax Police (*Guardia di Finanza*), following similar claims previously made for the years 2012 and 2013. With respect to an overall assessment claim of 205 million euro, which included 75 million euro for taxes and penalties, Fideuram had allocated 25 million euro in 2018, partly for the 2013 settlement and partly to cover the estimated liability for claims in subsequent years, all settled in 2019 with a total payment of 21.5 million euro.

On 26 June 2019, a favourable ruling for Intesa Sanpaolo Private Banking was issued by the Lombardy Regional Tax Commission, which rejected the main appeal by the Italian Revenue Agency against the ruling by the Milan Provincial Tax Commission, which had in turn upheld the (combined) appeals against the 2011 IRES and IRAP assessment notices (total claim amount of 7.3 million euro, of which 3.8 million euro for taxes and 3.5 million euro for penalties). In the above-mentioned assessment notices the Italian Revenue Agency had alleged an unlawful deduction of the amortisation charge of 11.6 million euro of the goodwill deriving from the transfer of the private banking businesses of Intesa Sanpaolo and Cassa dei Risparmi di Forlì e della Romagna, in the years 2009 and 2010, as realigned by Intesa Sanpaolo Private Banking in accordance with Article 15, paragraph 10, of Law Decree no. 185 of 29 November 2008. The disputes for the years 2011, 2012 and 2013, pending before the tax commissions, have all so far had favourable outcomes for the company. In relation to this dispute, on 8 and 10 April 2019 the Lombardy Regional Revenue Office - Large Taxpayers Office served assessment notices on Intesa Sanpaolo Private Banking and the Parent Company, as the consolidating entity, for IRES and IRAP for the tax years 2014 and 2015 (value of the disputes: 3.9 million euro and 4 million euro for tax, plus penalties and interest). In view of the continued favourable course of this dispute, as well as other factors, the risk of incurring liabilities is considered to be remote.

For Banca IMI, as at 31 December 2018, the remaining tax dispute related to proceedings pending before the Court of Cassation against assessment and adjustment notices for the years 2003, 2004 and 2005 (total remedy sought of almost

20 million euro for tax, penalties and interest). Following the unfavourable decisions in the proceedings on the merits before the Tax Commissions, payments of around 16 million euro, charged in full to the tax allowance, had already been made on a provisional basis for this dispute. As a result of these outcomes, an in-depth examination was conducted with a view to settling the disputes through the so-called “tax amnesty”, and the bank decided to exercise this option, also because this would mean that it would no longer have any pending tax disputes.

For Mediocredito Italiano, the Milan Tax Police (*Guardia di Finanza*) initiated a general audit of direct taxes for the tax years 2015 and 2017 and of VAT for the years 2014 and 2015. The requests from the Inspectors are currently focusing on the 2014 VAT and in particular on the tax exemption, pursuant to Article 8-bis of Presidential Decree no. 633/72, applied by the company to the nautical leases. The document gathering process is ongoing and no claims have been made for the time being. During the quarter, Mediocredito also settled two disputes of the former Leasint, through the so-called “tax amnesty”: the first for a minor amount relating to VAT in 2001 and the second relating to VAT and IRAP for 2005. For the latter, with respect to a claim amount of 6.8 million euro, the cost of the settlement was only 0.1 million euro.

Intesa Sanpaolo Vita also made use of the “tax amnesty”, through which it settled disputes regarding VAT on the services provided via contracts between insurance companies classed as co-insurance contracts (remedy sought of around 8 million euro for tax, plus penalties and interest), with a total payment of 5.8 million euro. The company had not made any provisions for the pending disputes, but in agreement with the independent auditors and based on a resolution of the Board of Directors of 7 May 2019, a receivable of around 5 million euro was recognised, in relation to that cost, for the right of recourse against the following counterparties: Poste Vita, Reale Mutua Assicurazioni, Unipol Assicurazioni and Cardif Assicurazioni. A single VAT dispute for 2013 with a total value of 0.24 million euro is still pending.

The amount of tax disputes involving foreign subsidiaries was limited and almost entirely provisioned. These consisted of claims for a total value of 5 million euro (in line with the end of December 2018) covered by provisions of 4 million euro (same amount at the end of 2018).

The tax audit on IMI SEC is currently underway for the years 2015 and 2016, for which the US tax authorities are contesting the composition of the company’s revenues, which have a high level of income originating from outside the State of New York and subject to lower tax. In 2019 the audit was also extended to 2017. No claims have been made for the time being.

The general tax audit (excluding VAT) on CIB Bank Ltd. in relation to the tax years 2015 and 2016 was completed without any particular findings. A VAT tax audit was initiated in May 2019. No claims have been made for the time being.

Moreover, with regard to relations between the international subsidiary banks and Italian customers, the Italian tax authorities are investigating the taxation in Italy of interest arising from the disbursement of loans to individuals resident in Italy and received by banks resident abroad without a permanent establishment in Italy, which would be required to tax the income generated in Italy at the ordinary IRES rate or at the conventional rate, if more favourable.

The Group’s subsidiary banks resident in Switzerland (Intesa Sanpaolo Private Bank (Suisse) Morval) and Luxembourg (Intesa Sanpaolo Bank Luxembourg) received questionnaires from the Italian tax authorities, to which they have responded. No claims have been made for the time being.

INSURANCE RISKS

Investment portfolios

The investments of the insurance companies of the Intesa Sanpaolo Group (Intesa Sanpaolo Vita, Intesa Sanpaolo Assicura, Intesa Sanpaolo Life and Fideuram Vita) are made with their free capital and to cover contractual obligations with customers. These refer to traditional revaluable life insurance policies, Index- and Unit-linked policies, pension funds and non-life policies. As at 30 June 2019, the investment portfolios of Group companies, recorded at book value, amounted to 161,939 million euro. Of these, a part amounting to 82,859 million euro relates to traditional revaluable life policies (the financial risk of which is shared with the policyholders by virtue of the mechanism whereby the returns on assets subject to segregated management are determined), non-life policies and free capital. The other component, whose risk is borne solely by the policyholders, consists of investments related to Index-linked policies, Unit-linked policies and pension funds and amounted to 79,080 million euro.

Considering the various types of risks, the analysis of investment portfolios, described below, concentrates on the assets held to cover traditional revaluable life policies, non-life policies and free capital.

In terms of breakdown by asset class, net of derivative financial instruments, 84.1% of assets, i.e. 69,599 million euro, were bonds, whereas equity instruments represented 1.5% of the total and amounted to 1,268 million euro. The remainder (11,906 million euro) consisted of investments relating to UCI, Private Equity and Hedge Funds (14.4%).

The carrying value of derivatives came to approximately 86 million euro, of which -13 million euro relating to effective management derivatives³, and the remaining portion (99 million euro) is attributable to hedging derivatives.

At the end of the first six months of 2019, investments made with the free capital of Intesa Sanpaolo Vita and Fideuram Vita amounted to approximately 986 million euro at market value, and presented a risk in terms of VaR (99% confidence level, 10-day holding period) of approximately 22 million euro.

The breakdown of the bond portfolio in terms of fair value sensitivity to interest rate changes showed that a +100 basis points parallel shift in the curve leads to a decrease of approximately 3,639 million euro.

The distribution of the portfolio by rating class is as follows. AAA/AA bonds represented approximately 6.6% of total investments and A bonds approximately 6.1%. Low investment grade securities (BBB) were approximately 85% of the total and the portion of speculative grade or unrated was minimal (approximately 2.3%).

A considerable portion of the BBB area is made up of securities issued by the Italian Republic.

The analysis of the exposure in terms of the issuers/counterparties produced the following results: securities issued by Governments and Central Banks approximately made up 78.9% of the total investments, while financial companies (mostly banks) contributed almost 11.7% of exposure and industrial securities made up approximately 9.4%.

At the end of the first half of 2019, the fair value sensitivity of bonds to a change in issuer credit rating, intended as a market credit spread shock of +100 basis points, was 3,709 million euro, with 3,033 million euro due to government issuers and 676 million euro to corporate issuers (financial institutions and industrial companies).

³ ISVAP Regulation 36 of 31 January 2011 on investments defines as "effective management derivatives" all derivatives aimed at achieving pre-established investment objectives in a faster, easier, more economical or more flexible manner than would have been possible acting on the underlying assets.