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 capacity, low leverage, adequate capital base, and prudent asset valuations.

Group liquidity remains high: as at 30 June 2017, both regulatory indicators envisaged by Basel 3 (LCR and NSFR), adopted also as internal liquidity risk measurement metrics, were well above the requirements for 2018. At the end of June, the eligible liquidity reserves for the Central Banks - including the components relating to the acquisition of certain assets and liabilities and certain legal relationships of Banca Popolare di Vicenza and Veneto Banca - came to 159 billion euro (150 billion euro at the end of December 2016), of which 81 billion euro, net of haircut, was unencumbered (96 billion euro at the end of December 2016).

The loan to deposit ratio at the end of June 2017, calculated as the ratio of loans to customers to direct deposits from banking business, including the components relating to the acquisition of certain assets and liabilities and certain legal relationships of Banca Popolare di Vicenza and Veneto Banca, came to 96%.

In terms of funding, the widespread branch network remains a stable, reliable source: 73% of direct deposits from banking business come from retail operations (279 billion euro). Moreover, during the half 2 billion euro in Additional Tier 1 instruments, 2.5 billion euro in senior Eurobonds, 1 billion euro in covered bonds and 500 million euro in green bonds were placed on the international markets.

With regard to the targeted refinancing operation TLTRO II, at the end of June 2017, the Group's participation amounted to 57 billion euro, equal to the maximum borrowing allowance (45 billion euro as at 31 December 2016). Including the components relating to the acquisition of certain assets and liabilities and certain legal relationships of Banca Popolare di Vicenza and Veneto Banca, the amount as at 30 June 2017 is equal to approximately 64 billion euro.

The Intesa Sanpaolo Group’s leverage (6.4% as at 30 June 2017) continues to be at the top levels recorded in the sector.

The capital base also remains high. Own funds, risk weighted assets and the capital ratios at 30 June 2017 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 half, total Own Funds came to 51,537 million euro, against risk-weighted assets of 301,699 million euro, which reflected primarily the credit and counterparty risk and, to a lesser extent, the operational and market risk.

The Total Capital Ratio stood at 17.1%, while the ratio of the Group’s Tier 1 capital to its total risk-weighted assets (Tier 1 ratio) was 14.3%. The ratio of Common Equity Tier 1 capital (CET1) to risk-weighted assets (the Common Equity Tier 1 ratio) was 12.5%.

With regard to the extraordinary circumstances which led, at the end of the first half, to the acquisition of certain assets and liabilities of Banca Popolare di Vicenza and Veneto Banca, the Common Equity Tier 1 capital includes – as the regulatory conditions for its inclusion pursuant to art. 26, paragraph 2 of the CRR were met – the 3.5 billion euro contribution received on 26 June 2017 by the government to ensure the absolute neutrality of the operation for CET 1 Ratio purposes. This amount, which is included in net income for first half of 2017, will not be distributable as dividend.

Conversely, the portion of net income exceeding the aforementioned 3.5 billion euro was not included in CET 1, since its inclusion will not be required until it exceeds the dividend announced to the market (3.4 billion euro for 2017).

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 during the first half of 2017 was approximately 78 million euro, compared to an average amount of approximately 101 million euro in the same period of 2016. The trend in the Group’s VaR in the first six months of 2017 - mainly determined by Banca IMI - is described in greater detail later in this chapter.

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 1,555 million euro, provide a coverage ratio of 0.5% (unchanged compared to the end of 2016).

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 crisis 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 were assessed using the usual criteria of prudence, as highlighted by the substantial average coverage percentages for bad loans (60.7%) and unlikely to pay (28%).

Constant attention has been paid to the valuation of financial items. The majority of financial assets are measured at fair value, since classified as held for trading using the fair value option, under assets available for sale, or represented by hedging derivatives.

The fair value measurement of financial assets was carried out as follows: approximately 82% using level 1 inputs, around 16% using level 2 inputs and only close to 2% using level 3 inputs. Among the financial liabilities designated at fair value through profit and loss, most of the financial instruments (approximately 90%) were measured using the level 2 approach.

As regards the Intesa Sanpaolo Group’s sovereign debt exposure, at the end of June exposure in securities to the Italian government amounted to a total of approximately 84 billion euro, in addition to receivables for approximately 14 billion euro.

Investment levels in structured credit products and hedge funds remained low. The former generated a positive contribution of 21 million euro during the half year. Also for the hedge funds, the economic result of the investments in this segment was positive and amounted to 8 million euro.
In volatile market environments, measuring the recoverable amount of intangible assets is also particularly delicate. However, with regard to intangible assets and goodwill, no problem issues were identified during the half – also in consideration of the short length of time since the last impairment test – requiring the remeasurement of their recoverable values. In particular, with regard to goodwill, the analyses conducted showed no significant changes to the main parameters and macroeconomic aggregates which could have an impact on the Group's expected cash flows and on the discounting rates thereof based on the models used to verify the retention of the recognition value of the intangible asset in the financial statements.

THE BASIC PRINCIPLES OF RISK MANAGEMENT

The Intesa Sanpaolo Group's risk acceptance and governance policies are defined by the Board of Directors; the Management Control Committee, which is the body with control functions, supervises the adequacy, efficiency and functionality of the risk management process and of the Risk Appetite Framework. The Board of Directors carries out its tasks with the support of specific internal committees, among which the Risk Committee. The Corporate Bodies are assisted by the action of management committees, among which mention should be made of the Steering Committee, as well as by the Chief Risk Officer, reporting directly to the Chief Executive Officer.
The Chief Risk Officer 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) 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 exposure to the various types of risk and reporting the situation periodically to the corporate bodies.
The Parent Company performs a guidance and coordination role with respect to the Group Companies, aimed at ensuring effective and efficient risk management at Group level. 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.

BASEL 3 REGULATIONS AND THE INTERNAL PROJECT

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 risk, compared to the situation as at 31 December 2016, the following changes are reported as at 30 June:
- on 9 March the Group received from the ECB the authorisation relating to the Banks and Public Sector Entities portfolios, valid from the Supervisory reporting as at 30 June 2017;
- on 18 April 2017, the Group received the authorisation from the ECB to use the new internal rating systems (PD) and LGD for the Corporate portfolio, valid from the Supervisory reporting as at 30 June 2017. The scope of the authorisation also extends to the subsidiaries Intesa Sanpaolo Bank Ireland and Intesa Sanpaolo Bank Luxembourg. The Slovak subsidiary, Vseobecna Uverova Banka (VUB), uses this model only for counterparties with a turnover of more than 500 million euro;
- on 31 March, the Slovenian subsidiary, Banka Intesa Sanpaolo (formerly Banka Koper), received the authorisation from the ECB to use the internal rating systems (PD-FIRB) for the Corporate portfolio, valid from the Supervisory reporting as at 31 March 2017.
- on 7 March, the Slovak subsidiary, Vseobecna Uverova Banka (VUB), received the authorisation from the ECB to use the new internal rating model for the Retail Mortgage regulatory segment, valid from the Supervisory reporting as at 31 March 2017. The first report was presented on 30 June 2017;
- on 9 March the Group received the authorisation from the ECB to extend the internal rating system based on the PD/LGD approach to the Banking Book Equity instruments for the purpose of calculating the capital requirements, valid from the Supervisory reporting as at 30 June 2017.

The credit exposures included in the scope of operations acquired from Veneto Banca S.p.A. and Banca Popolare di Vicenza S.p.A. (former Venetian banks) are evaluated, with reference to 30 June 2017, with the standardised approach. They will migrate to the internal rating systems according to a plan that will be agreed with the Supervisory Authority.

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 2017 is shown in the following table:

<table>
<tr><th>Company</th><th>Corporate
FIRB</th><th>Corporate
AIRB LGD</th><th>Mortgage
IRB LGD</th><th>SME Retail
IRB LGD</th><th>Banks and Public Entities
IRB</th><th>Banking Book Equity
IRB</th></tr>
<tr><td>Intesa Sanpaolo</td><td rowspan="6">Dec - 2008</td><td rowspan="7">Dec - 2010</td><td rowspan="7">Jun - 2010</td><td rowspan="7">Dec - 2012</td><td rowspan="7">Jun - 2017</td><td rowspan="7">Jun - 2017</td></tr>
<tr><td>Banco di Napoli</td></tr>
<tr><td>Cassa di Risparmio del Veneto</td></tr>
<tr><td>Cassa di Risparmio di Bologna</td></tr>
<tr><td>Cassa di Risparmio del Friuli Venezia Giulia</td></tr>
<tr><td>Cassa dei Risparmi di Forlì e della Romagna</td></tr>
<tr><td>Gruppo Cassa di Risparmio di Firenze</td><td>Dec - 2009</td></tr>
<tr><td>Mediocredito Italiano</td><td>Dec - 2008</td><td>Dec - 2010</td><td>n.a.</td><td>Dec - 2012</td><td>Jun - 2017</td><td>n.a</td></tr>
<tr><td>Banca Prossima</td><td>n.a.</td><td>Dec - 2013</td><td>n.a.</td><td>Dec - 2013</td><td>Jun - 2017</td><td>n.a</td></tr>
<tr><td>Banca IMI</td><td>n.a.</td><td>Jun - 2012</td><td>n.a.</td><td>n.a.</td><td>Jun - 2017</td><td>n.a</td></tr>
<tr><td>IMI Investimenti</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a</td><td>Jun - 2017</td></tr>
<tr><td>Intesa Sanpaolo Bank Ireland</td><td>Mar - 2010</td><td>Dec - 2011</td><td>n.a.</td><td>n.a.</td><td>n.a</td><td>n.a</td></tr>
<tr><td>Vseobecna Uverova Banka</td><td>Dec - 2010</td><td>Jun - 2014</td><td>Jun - 2012</td><td>Jun - 2014</td><td>n.a</td><td>n.a</td></tr>
<tr><td>Banka Intesa Sanpaolo d.d.</td><td>Mar - 2017</td><td>n.a.</td><td>n.a.</td><td>n.a.</td><td>n.a</td><td>n.a</td></tr>
<tr><td>Intesa Sanpaolo Bank Luxembourg</td><td>n.a.</td><td>Jun - 2017</td><td>n.a.</td><td>n.a.</td><td>n.a</td><td>n.a</td></tr>
</table>

With regard to counterparty risk, the Group improved the measurement and monitoring of the risk, by refining the instruments required under Basel 3.
For reporting purposes, the Parent Company, Banca IMI and the banks of the Banca dei Territori Division are authorised to use the internal models approach for the reporting of the requirement with respect to counterparty risk both for OTC derivatives and for SFTs (Securities Financing Transactions, i.e. repos and securities lending).
This authorisation was obtained for the derivatives of Banca IMI and the Parent Company from the first quarter of 2014, and for the SFTs from the reporting as at 31 December 2016. The banks of the Banca dei Territori Division received the same authorisation for derivatives from the report as at 31 December 2016.
For management purposes, the advanced risk measurement approaches have been implemented for the OTC derivatives of the Parent Company and Banca IMI since 2010 and were subsequently extended in 2015 to the Banca dei Territori Division and to Securities Financing Transactions.

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 2017.

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 respect to loans to customers, risk is measured using internal rating models which change according to the counterparty's operating segment.

Regarding the new models to be applied to the Corporate portfolio, for which the authorisation was mentioned, steps were taken to broaden the information set used for counterparty evaluation using the PD and to simplify the framework and number of the models. Finally, various measures have been adopted that are aimed at favouring a through-the-cycle profile of the probabilities of default produced by the models, consistently with the relational-type commercial approach adopted by the Group. With regard to the LGD, the most significant change is represented by the development of the model dedicated to non-performing loans.

As regard the model for determining the probability of default for the Banks portfolio, the choice was made to differentiate between models for banks in mature economies and banks in emerging countries. In short, the model consists of a quantitative part and a qualitative part, differentiated according to mature and emerging countries, a country rating component representing systemic risk, a component relating to specific country risk for banks most closely correlated with country risk, and finally, a module ("relationship manager's judgement") that allows the rating to be modified in certain conditions. The Loss Given Default (LGD) calculation model partly diverges from the models developed for the other segments as the estimation model used is based on the market price of debt instruments observed 30 days after the official date of default and relating to a sample of defaulted banks from all over the world, acquired from an external provider. The model is completed by an econometric estimate aimed at determining the most significant drivers, in accordance with the practice in use for the other models.

In the Public Sector Entities portfolio, the reference models have been differentiated according to the type of counterparty. Accordingly, default models have been developed for municipalities and provinces and shadow rating models for regions. An approach to extend the rating of the regulatory Entity (e.g.: Region) has been adopted for local healthcare authorities and other sector entities, with possible changes on the basis of financial statement assessments (notching). As regards the LGD estimate of the Public Sector Entities segment, the methodological framework is substantially similar to that used for the development of the LGD models of the already validated segments (Corporate, Retail SME, Retail Mortgage).

Concerning VUB, the updating of the PD and LGD models for the Retail Mortgage segment consisted in a broadening and optimisation of the information set used by the models and their re-calibration to take into account the improvement in Slovakia's economic cycle.

Regarding Banka Intesa Sanpaolo (formerly Banka Koper), the new PD model for the Corporate segment assesses the creditworthiness of the counterparties using both a quantitative and a qualitative component. The quantitative component consists of two main statistic modules: the first considers the financial statements, while the second the performance figures of the counterparty. A questionnaire completed by the manager and a thorough analysis of the customer may, subsequently and under specific conditions, change the final rating of the counterparty.

Regarding the Banking Book Equity instruments, based on EU Regulation 575/2013, the Group decided to adopt the PD/LGD method due to the fact that the investments in the scope are held for a medium-term investment period, that this method is consistent with the treatment of the rest of the Banking Book portfolio and that it is less exposed to model risk (unlike market oriented models). More specifically, the approach chosen requires the PDs to be determined in compliance with the IRB methods applied for exposures towards companies with the introduction of floors (which range from a minimum of 0.09% to a maximum of 1.25% according to the type of instrument); the exposures represented by private equity instruments included in sufficiently diversified portfolios may be attributed a regulatory LGD of 65%, while all the other exposures will have an LGD of 90%.

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 forborne 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.

(millions of euro)

	30.06.2017									31.12.2016			Changes
	Gross exposure			Total adjustments			Net exposure			Gross exposure	Total adjustments	Net exposure	Net exposure
	Consolidated figure (a)	Of which: figure of operations acquired (b)	Consolidated figure excluding operations acquired (c) = (a) - (b)	Consolidated figure (a)	Of which: figure of operations acquired (b)	Consolidated figure excluding operations acquired (c) = (a) - (b)	Consolidated figure (a)	Of which: figure of operations acquired (b)	Consolidated figure excluding operations acquired (c) = (a) - (b)				
Bad loans	35,386	-	35,386	-21,466	-	-21,466	13,920	-	13,920	37,834	-22,939	14,895	-975
Unlikely to pay	18,821	-	18,821	-5,275	-	-5,275	13,546	-	13,546	19,745	-5,310	14,435	-889
Past due loans	427	-	427	-91	-	-91	336	-	336	558	-121	437	-101
Non-performing loans	**54,634**	**-**	**54,634**	**-26,832**	**-**	**-26,832**	**27,802**	**-**	**27,802**	**58,137**	**-28,370**	**29,767**	**-1,965**
of which forborne	***11,556***	***-***	***11,556***	***-3,721***	***-***	***-3,721***	***7,835***	***-***	***7,835***	***11,727***	***-3,523***	***8,204***	***-369***
Performing loans	354,144	24,398	329,746	-1,728	-173	-1,555	352,416	24,225	328,191	322,130	-1,607	320,523	7,668
of which forborne	*7,755*	*880*	*6,875*	*-207*	*-20*	*-187*	*7,548*	*860*	*6,688*	*8,036*	*-208*	*7,828*	*-1,140*
Performing loans represented by securities	13,510	217	13,293	-211	-14	-197	13,299	203	13,096	14,651	-228	14,423	-1,327
of which forborne	*94*	-	*94*	*-1*	-	*-1*	*93*	-	*93*	*97*	*-1*	*96*	*-3*
Loans to customers	**422,288**	**24,615**	**397,673**	**-28,771**	**-187**	**-28,584**	**393,517**	**24,428**	**369,089**	**394,918**	**-30,205**	**364,713**	**4,376**

Figures restated, where necessary, considering the changes in the scope of consolidation and discontinued operations. The figures concerning assets and liabilities in relation to the acquired operations of Banca Popolare di Vicenza S.p.a. and Veneto Banca S.p.a. have not been restated.

As at 30 June 2017, the Group's non-performing loans, net of adjustments, came to 27.8 billion euro, below the levels of the end of 2016 (-6.6%), and confirming the gradual decrease shown during the last year. Compared to the end of December 2016, there was also a decrease in non-performing assets as a percentage of total net loans to customers, down to 7.5% from 8.2% at the end of 2016. By including the loans to customers of Banca Popolare di Vicenza and Veneto Banca, the impact of non-performing loans drops further to 7.1%.
In further detail, bad loans came to 13.9 billion euro, net of adjustments, at the end of the first half of 2017, down (-6.5%) from the beginning of the year, also based on the settlements and transfers carried out, and represented 3.8% of total loans (3.5% including the two Venetian banks), compared to 4.1% at the end of 2016. During the same period, the coverage ratio stood at 60.7% (60.6% in December 2016). Loans included in the unlikely to pay category amounted to 13.6 billion euro, down by 6.2%, accounting for 3.6% of total loans to customers (3.4% including the two Venetian banks), with a coverage ratio of 28% (26.9% in December 2016). Past due loans amounted to 336 million euro, down 23.1% since the beginning of the year, with a coverage ratio of 21.3%. Forborne exposures are generated by forbearance measures for borrowers experiencing difficulty in meeting their financial obligations, according to the definition introduced by the European Banking Authority with the aim of harmonising the classification of the definitions of non-performing loans and forbearance practices (renegotiation due to financial difficulty by the debtor) at the European level. Within the non-performing loan category, forborne exposures amounted to 7.8 billion euro, with an average coverage ratio of 32.2%, whereas those in the performing loan category were slightly lower (6.7 billion euro).
The overall coverage ratio of performing loans was 0.5%.

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 (around 2% 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.
For some of the risk factors indicated above, the Supervisory Authority has validated the internal models for the reporting of the capital absorptions of both Intesa Sanpaolo and Banca IMI.
Effective from the report as at 30 September 2012, both banks have received authorisation from the Supervisory Authority to extend the scope of the model to specific risk on debt securities. The model was extended on the basis of the current methodological framework (a historical simulation in full evaluation), and required the integration of the Incremental Risk Charge into the calculation of the capital requirement for market risks.

Effective from June 2014, market risks are to be reported according to the internal model for capital requirements for the Parent Company's hedge fund portfolios (the full look-through approach).
The risk profiles validated are: (i) generic/specific on debt securities and on equities for Intesa Sanpaolo and Banca IMI, (ii) position risk on units of UCI underlying CPPI (Constant Proportion Portfolio Insurance) products for Banca IMI, (iii) position risk on dividend derivatives and (iv) position risk on commodities for Banca IMI, the only legal entity in the Group authorised to hold open positions in commodities.

The requirement for stressed VaR is included when determining capital absorption effective from 31 December 2011. 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 historical series to be used for all portfolio risk factors.

In keeping with the historical simulation approach employed to calculate VaR, the latter point is a discriminating condition in the selection of the holding period. In fact, 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.
As at the date of preparation of this document, the period relevant to the measurement of stressed VaR had been set as 1 January to 31 December 2011 for Intesa Sanpaolo and as 1 July 2011 to 30 June 2012 for Banca IMI.

The analysis of market risk profiles relative to the trading book 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, with a 99% confidence level and 1-day holding period.
The following paragraphs provide the estimates and evolution of VaR, defined as the sum of VaR and of the simulation on illiquid parameters, for the trading book of Intesa Sanpaolo and Banca IMI.

Please note that the market risk measurements as at 30 June 2017 include the items from the segregated scope formerly of Banca Popolare di Vicenza and Veneto Banca, based on the information available as at the date of preparation of the financial statements.

Daily VaR of the trading book for Intesa Sanpaolo and Banca IMI[a]

During the second quarter of 2017, the market risks generated by Intesa Sanpaolo and Banca IMI decreased compared to the average values of the first quarter of 2017. The average VaR for the period totalled 70 million euro compared to 85.3 million euro of March 2017.

(millions of euro)

	2017				2016			
	average 2nd quarter	minimum 2nd quarter	maximum 2nd quarter	average 1st quarter	average 4th quarter	average 3rd quarter	average 2nd quarter	average 1st quarter
Intesa Sanpaolo	11.6	9.6	12.4	11.5	11.7	11.5	11.5	14.9
Banca IMI	58.4	52.9	63.7	73.7	63.8	90.6	85.5	90.0
Total	**70.0**	**62.5**	**75.5**	**85.3**	**75.6**	**102.2**	**97.0**	**104.9**

[a] Each line in the table sets out past estimates of daily VaR calculated on the quartely 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.

Compared to last year, the risk measures for the first half have decreased: for 2017 an average group VaR of 78 million was recorded whilst in 2016 the average amounted to approximately 101 million euro.

(millions of euro)

	2017			2016		
	average 1st half	minimum 1st half	maximum 1st half	average 1st half	minimum 1st half	maximum 1st half
Intesa Sanpaolo	11.5	9.2	12.5	13.2	10.2	17.5
Banca IMI	66.2	52.9	93.2	87.7	64.8	122.4
Total	**77.8**	**62.2**	**104.8**	**100.9**	**78.4**	**134.0**

[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.

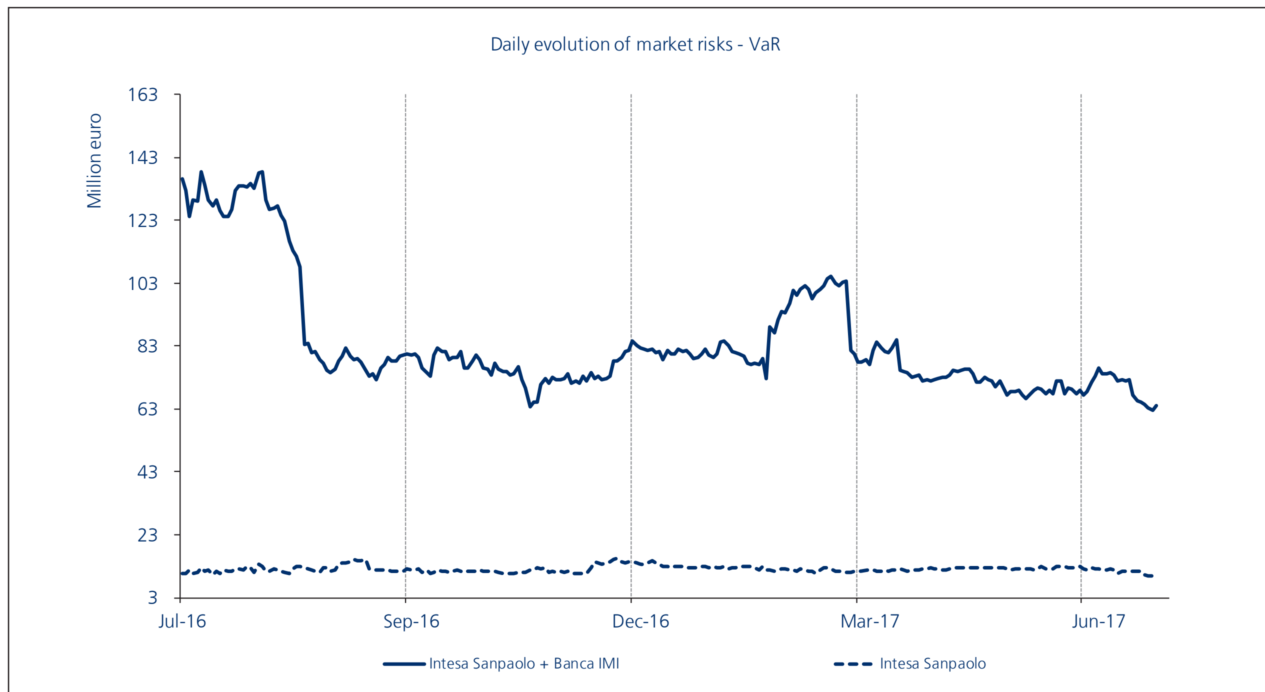
For Intesa Sanpaolo the breakdown of risk profile in the second quarter of 2017 with regard to the various factors shows the prevalence of the risk generated by credit spread, which produced 34% of total operational VaR; for Banca IMI too credit spread risk was the most significant, representing 77% of total operational VaR.

Contribution of risk factors to total VaR[a]

2nd quarter 2017	Shares	Hedge funds	Interest rates	Credit spreads	Foreign exchange rates	Other parameters	Commodities
Intesa Sanpaolo	5%	4%	25%	34%	30%	2%	0%
Banca IMI	5%	0%	7%	77%	1%	6%	4%
Total	**5%**	**1%**	**10%**	**69%**	**6%**	**5%**	**4%**

[a] Each line in the table sets out the contribution of risk factors considering 100% the overall capital at risk, calculated as the average of daily estimates in the second quarter of 2017, broken down between Intesa Sanpaolo and Banca IMI and indicating the distribution of overall capital at risk.

The trend in VaR is mainly attributable to Banca IMI.
During the first quarter of 2017 an increase in risks was recorded, due initially to a "scenario" effect (at the beginning of February a particularly volatile scenario was recorded for the credit spread risk factor) and subsequently to an increase in risks in the credit and equity sector. In the last month of the first quarter, the VaR recorded a decline due to the technical effect linked to the passage of time, whereby past scenarios, at the time volatile, assume, with the passing of days, a lower weighting in the calculation of risks.
In the second quarter of 2017, in addition to the abovementioned technical effect, according to which the “Brexit scenario” has been phased out of the VaR calculation period, a further decline in risks was recorded due to a reduction in the securities portfolio.



Risk control with regard to the trading activity of Intesa Sanpaolo and Banca IMI also uses scenario analyses and stress tests. The impact on the income statement 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	-43	14	-35	27	295	-289	27	-7	4	-1

In particular:
- on stock market positions, a 15% decrease in stock prices with a resulting 25% increase in volatility would have led to a loss of approximately 43 million euro;
- on interest rate exposures, a rise of the curves of 40 basis points would have had a negative impact of 35 million euro, whereas a scenario with near zero rates would have led to potential gains;
- on exposures sensitive to credit spread fluctuations, a 25 basis point widening in spreads would have led to a 289 million euro loss;
- on foreign exchange exposures, were the Euro to appreciate against the US dollar by 10%, a loss of approximately 7 million euro would be recorded;
- lastly, for commodity exposures potential losses would be recorded for an amount equal to 1 million euro in case of a 20% increase in prices of commodities (accompanied by a reduction in the price of gold of 15%).

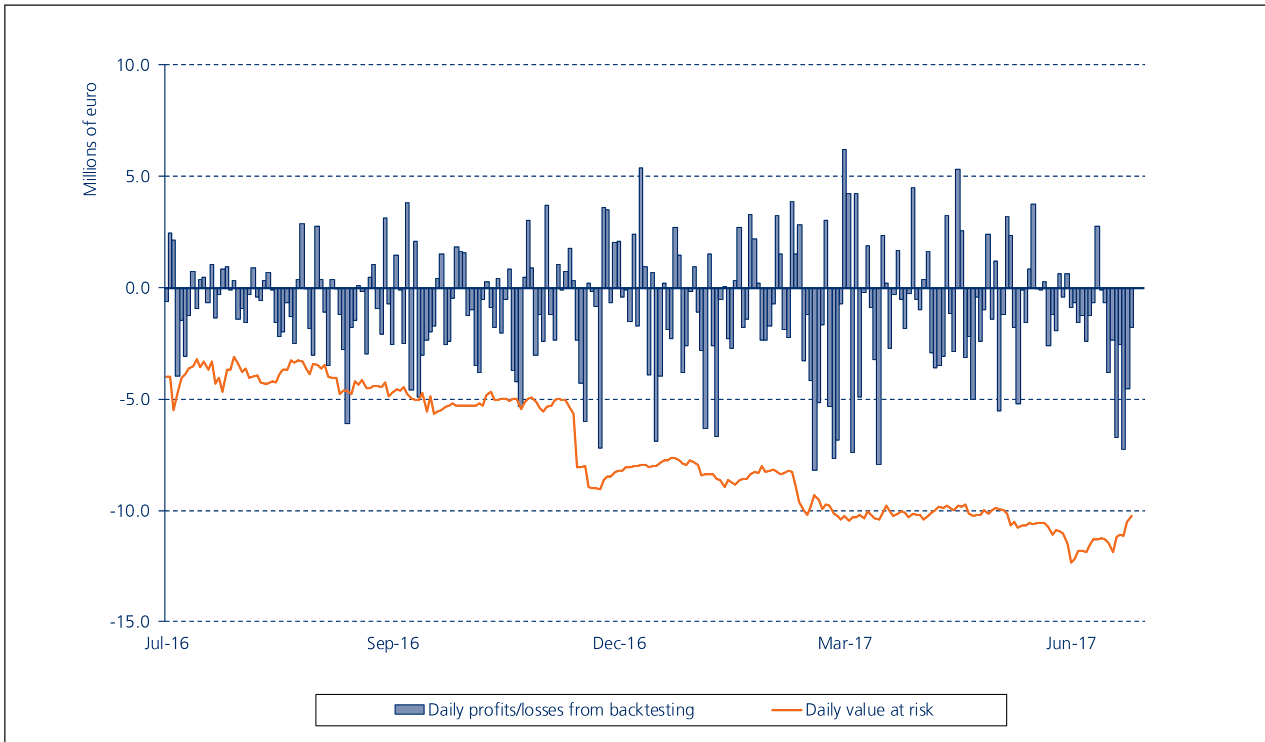
Backtesting

The effectiveness of the VaR calculation methods must be monitored daily via backtesting which, as concerns 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 such as commissions and intraday activities.

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 three 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 P&L series recorded and the theoretical series. The latter is based on valuation of the portfolio value through the use of pricing models adopted for the VaR measurement calculation. The number of significant backtesting exceptions is determined as the maximum between those for actual P&L and theoretical P&L.

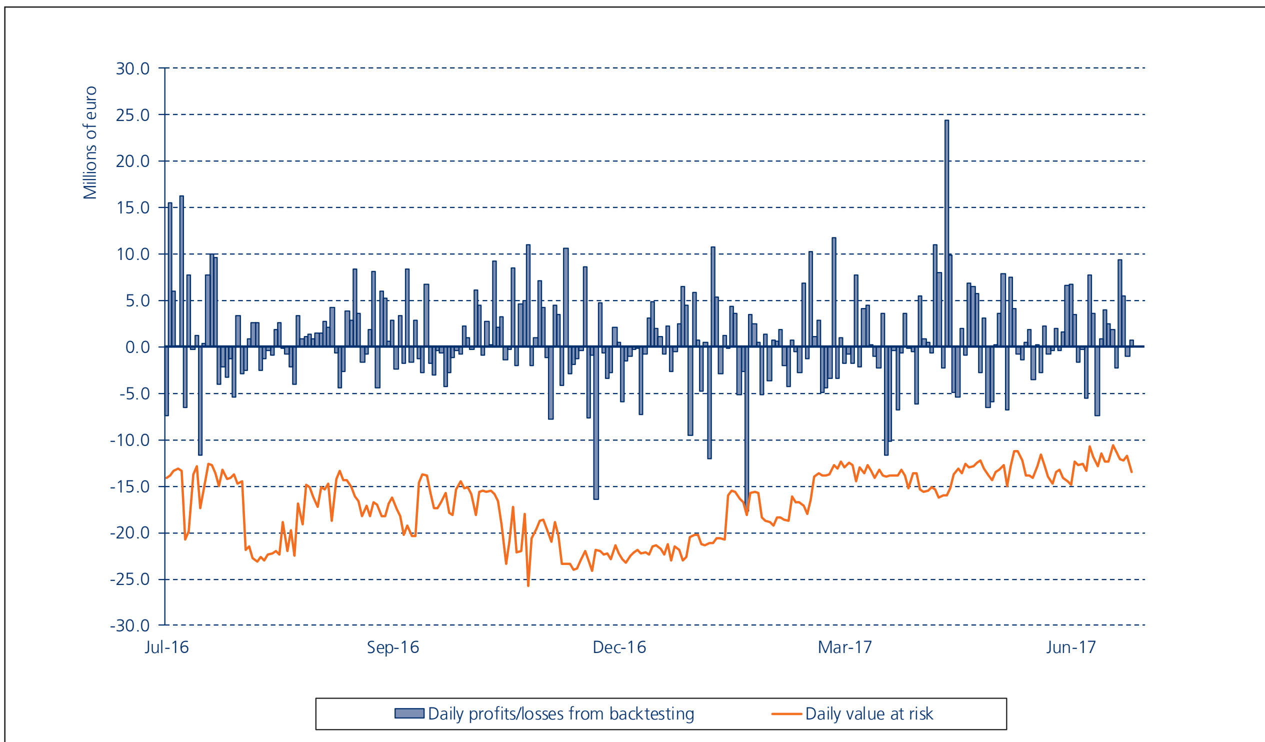
Backtesting in Intesa Sanpaolo

In the past twelve months, there has been only one actual backtesting exception tied to interest rate movements.



Backtesting in Banca IMI

In the past twelve months, there were no backtesting exceptions.



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 following methods are used to measure financial risks of the Group's banking book:
- Shift sensitivity of value (EVE);
- Value at Risk (VaR);
- Shift sensitivity of net interest income (NII);

The sensitivity of economic value (EVE) measures the change in the economic value of the Group's commercial portfolio following shocks in the market rates curves. The sensitivity of EVE is calculated by adopting various interest rate shock scenarios that consider not only parallel shifts in market curves, but also a range of potential scenarios that include conditions of severe stress with regard to the shape of the curve, the level of the current maturity structure of interest rates and historic and implicit rate volatility. The standard shock is defined as a parallel, uniform shift in the curve of +100 basis points. The measurements include an estimate of the prepayment effect and of the risk originated by on demand customer deposits, whose features of stability and of partial and delayed reaction to interest rate fluctuations have been studied by analysing a large collection of historical data, obtaining a maturity representation model through equivalent deposits. Equity risk sensitivity is measured as the impact of a price shock of ±10%.

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.
The Shift sensitivity analysis quantifies the change in value of a financial portfolio resulting from adverse movements in the main risk factors (interest rate, foreign exchange, equity). For interest rate risk, an adverse movement is defined as a parallel and uniform shift of +100 basis points of the interest rate curve.
The sensitivity of net interest income focuses the analysis on the impact that changes in interest rates can have on the Group's ability to generate stable profit levels. The component of profits measured is represented by the difference between the net interest income generated by interest-bearing assets and liabilities, including the results of hedging activities through the use of derivatives. The time horizon of reference is commonly limited to the short and medium term (from one to three years) and assesses the impact that the institution is able to continue with its activity (the going concern approach).

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

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 entered into 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 or liabilities (micro hedging), 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 floating-rate loans.
In 2016 the Group consolidated the use of macrohedging for a portion of fixed-rate loans, adopting an open-portfolio macrohedging model for a portion of fixed-rate loans 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 floating-rate funding, to the extent that the latter finances fixed-rate investments, and on floating-rate investments to cover fixed-rate funding (macro cash flow hedges).
The Financial and Market Risks Department is in charge of measuring the effectiveness of interest rate risk hedges for the purpose of hedge accounting, in compliance with international accounting standards.

The measurements concerning interest rate risk include the items from the segregated scope formerly of Banca Popolare di Vicenza and Veneto Banca, based on the information available as at the date of preparation of the Half-yearly financial statements.

In the first six months of 2017, interest rate risk generated by the Intesa Sanpaolo Group's banking book, measured through shift sensitivity analysis, recorded an average value of 1,052 million euro, settling at 1,046 million euro at the end of June 2017, almost entirely concentrated on the euro; this figure compares with 945 million euro at the end of 2016.
The sensitivity of net interest income – assuming a +50 and -50 basis point change in interest rates – amounted to 601 million euro and -740 million euro respectively, at the end of June 2017 (571 million euro and -665 million euro at the end of 2016).
Interest rate risk, measured in terms of VaR, recorded an average of 124 million euro in the first six months of 2017 (117 million euro at the end of 2016), with a maximum value of 153 million euro and a minimum value of 85 million euro; the latter figure coincides with the value at the end of June 2017. Price risk generated by minority stakes in listed companies, mostly held in the AFS (Available for Sale) category and measured in terms of VaR, recorded an average level of 134 million euro in the first six

months of 2017 (161 million euro at the end of 2016), with a minimum value of 107 million euro and a maximum value of 146 million euro; that figure compares with a value of 107 million euro at the end of June 2017.
Lastly, an analysis of banking book sensitivity to price risk, measuring the impact on Shareholders' Equity of a price shock on the above listed assets recorded in the AFS category shows a sensitivity to a 10% negative shock equal to 11.9 million euro at the end of June 2017.

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).
The "Guidelines for Group Liquidity Risk Management" 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 the 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 Treasury Head Office Department, the Planning and Active Value Management 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.
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 Policy is aimed at ensuring 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, in order to respond to periods of tension, including extended periods, on the various funding sourcing markets, also by establishing adequate liquidity reserves in the form of liquid securities on private markets and securities eligible for refinancing with Central Banks. 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.
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 Liquidity Coverage Ratio (LCR), the minimum regulatory threshold for which is 80% (100% after the 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 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. NSFR's regulatory requirement, which is still subject to a period of observation, will come into force at the end of the legislative process in progress for the application of the global reform package on the CRR and CRD IV (Regulation 575/2013 and Directive 2013/36/EU). The Guidelines for Group Liquidity Risk Management 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 a minimum limit on the LCR indicator up to 3 months, with a view to 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 Treasury Head Office Department and the Planning and Active Value Management Head Office Department were 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.
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 remained within the risk limits provided for in the current Group's Liquidity Policy: both the LCR and NSFR indicators were largely respected, as they reached a level well above the phased-in requirements. As at 30 June 2017, the eligible liquidity reserves for the Central Banks, considering cash components, came to 159 billion euro (156 billion euro at the end of March 2017), of which 81 billion euro, net of haircut, was unencumbered (82 billion euro at the end of March 2017).
The measurements include the items from the segregated scope formerly of Banca Popolare di Vicenza and Veneto Banca, based on the information available as at the date of preparation of the Half-yearly financial statements.
Also the stress tests, when considering the high availability of liquidity reserves (liquid or eligible), yielded results in excess of the target threshold for the 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 main 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 finance transactions, hedge fund investments and transactions in derivatives with customers.

FAIR VALUE MEASUREMENT OF FINANCIAL ASSETS AND LIABILITIES

General principles

This chapter summarises the criteria used by the Group to measure the fair value of financial instruments. These criteria are substantially unchanged with respect to those illustrated in detail in the Annual Report 2016, to which reference is made for more information.
The Intesa Sanpaolo Group governs and defines the fair value measurement of financial instruments through the Group's Fair Value Policy, prepared by the Financial and Market Risks Head Office Department and also applied to the Parent Company and to all consolidated subsidiaries.

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants (i.e. not as part of the compulsory liquidation or a below-cost sale) as at the measurement date. Fair value is a market measurement criterion, not specifically referring to a single bank. Underlying the definition of fair value is the assumption that the Bank is carrying out normal operations, without any intention of liquidating its assets, significantly reducing the level of operations or carrying out transactions at unfavourable conditions.
A bank has to measure the fair value of an asset or liability by adopting the assumptions that would be used by market participants when pricing an asset or liability, presuming that they act with a view to satisfying their own economic interest in the best way possible. Measurement at fair value presumes that the asset is sold or the liability transferred:
a. in the principal active market for the asset or liability;
b. in the absence of a major market, in the most advantageous active market for the asset or liability.
The entity is not required to conduct an exhaustive study of all possible markets to identify the major market or, in the absence of the major market, the most advantageous market, but must take into account all the reasonably available information. If there is no evidence to the contrary, the market that the entity normally operates in to sell the asset or transfer the liability is assumed to be the major market or the most advantageous market, if there is no major market. The Intesa Sanpaolo Group considers the principal market of a financial asset or liability to be the market in which the Group generally operates.

The Group considers a market to be active when transactions in an asset or liability occur with sufficient frequency and volume to provide useful information for determining price on an ongoing basis. An instrument is considered listed on an active market if prices reflecting normal market transactions are promptly and regularly available from stock exchanges, brokers, intermediaries, principal-to-principal markets, listing services or authorised entities and such prices are representative of effective, regular market transactions.

Fair value hierarchy

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 measurement techniques rather than the measurement techniques themselves.

Identification, certification and treatment of market data and the sources for measurements

The fair value calculation process and the need to distinguish between products which may be measured on the basis of effective market quotes rather than through the application of comparable or mark-to-model approaches, highlight the need to establish univocal principles in the determination of market parameters. To this end, the Market Data Reference Guide – a document prepared and updated by the Financial and Market Risks Department on the basis of the Group's Internal Regulations approved by the Management bodies of the Parent Company and Group Companies – has established the processes necessary to identify market parameters and the means according to which such parameters must be extracted and used. Such market data may be both elementary and derived data. In particular, for each reference category (asset class), the regulation determines the relative requisites, as well as the cut-off and certification means. The document defines the collection of the contribution sources deemed adequate for the valuation of financial instruments held for any purpose in the proprietary portfolios of the Parent Company and its subsidiaries. The same sources are used in valuations carried out for third parties under Service Level Agreements, entered into in advance. Adequacy is guaranteed by the respect of reference requirements, which are based on comparability, availability and transparency of the data, or the possibility of extracting the figure from one or more info providing systems, of measuring the contribution bid-ask, and lastly, for OTC products, of verifying the comparability of the contribution sources. For each market parameter category the cut-off time is determined univocally, with reference to the timing of definition of the parameter, the reference bid/ask side and the number of contributions necessary to verify the price.

The use of all market parameters in Intesa Sanpaolo is subordinated to their certification (Validation Process) by the Financial and Market Risks Department, in terms of specific controls (verifying the integrity of data contained on the proprietary platform with respect to the source of contribution), reliability tests (consistency of each single figure with similar or comparable figures) and verification of concrete application means.

Valuation of financial instruments and Model Risk Management
The valuation of financial instruments entails the following phases:
– identification of the measurement sources: for each asset class, the Fair Value Policy and Market Data Reference Guide establish the processes necessary to identify market parameters and the means according to which such data must be extracted and used;
– validation and processing of market data for periodic valuation: this stage consists of the accurate verification, at each accounting measurement date, of the market parameters used (verifying the integrity of data contained on the proprietary platform with respect to the source of contribution), reliability tests (consistency of each single figure with similar or comparable figures) and verification of concrete application means;
– certification of pricing models and Model Risk Assessment: this phase is aimed at verifying the consistency and the adherence of the various measurement techniques used with current market practice, at highlighting any critical aspects in the valuation models used and at determining any adjustments necessary for measurement. The validation process is particularly important when a new financial instrument is introduced to the operations, or when it is considered necessary to update the pricing models for already managed products. In both cases, the validation consists of adapting an existing pricing model or developing new pricing models. In all cases, the models used for the pricing are subject to an internal certification process that involves the various competent structures or independent companies, in highly complex or particularly critical cases;
– periodic monitoring of the consistency of the valuation models over time: the monitoring consists in checking the adherence to the market of the valuation model in order to promptly discover any gaps and start the necessary verifications and interventions.

In general, Model Risk is represented by the possibility that the price of a financial instrument is materially influenced by the valuation approach chosen. In the case of complex financial instruments, for which there is no standard valuation method in the market, or during periods when new valuation methods are being established in the market, it is possible that different methods may consistently value the elementary instruments of reference, but provide differing valuations for exotic instruments. The model risk is monitored through a series of analyses and checks carried out at different stages, aimed at certifying the various valuation methods used by the Parent Company ("Model Validation"), at regularly monitoring the performance of the models in operation to promptly identify any deviation from the market ("Model Risk Monitoring") and at identifying any adjustments to be made to the valuations ("Model Risk Adjustment").

Adjustments adopted to reflect model risk and other uncertainties related to the valuation
If problems are found by the Model Validation process or the Model Risk Monitoring process in the calculation of the fair value of particular financial instruments, the appropriate Mark-to-Market Adjustments to be made to the valuations are identified. These adjustments are regularly reviewed, also considering market trends, or the introduction of new liquid instruments, different calculation methodologies and, in general, methodological advances which may also lead to significant changes in selected models and their implementation.
In addition to the adjustments relating to the abovementioned factors, also other types of adjustments ("Mark-to-Market Adjustment") relating to other factors that may influence the valuation are included. These factors essentially involve:
– high and/or complex risk profile;
– illiquidity of the positions determined by temporary or structural market conditions or in relation to the amount of assets held (in case of excessive concentration);
– valuation difficulties due to the lack of liquid and observable market parameters.
For illiquid products an adjustment is made to the fair value. This adjustment is generally not very relevant for instruments for which the measurement is supplied directly by an active market (level 1). Specifically, highly liquid quoted securities are valued directly at mid-price, whereas for quoted securities with low liquidity the bid price is used for long positions and the ask price for short positions. Bonds that are not quoted are valued according to credit spreads that differ based on the position of the security (long or short).
Conversely, for derivatives for which fair value is determined with a valuation technique (levels 2 and 3), the adjustment may be calculated with different means according to the availability on the market of bid and ask prices and products with similar characteristics in terms of contract type, underlying asset, currency, maturity and volumes traded which may be used as benchmarks.
Where none of the indications above is available, stress tests are performed on input parameters deemed to be relevant in the model. The main factors considered to be illiquid (in addition to the inputs for the valuation of structured credit derivatives, to be discussed in further detail below) and for which the respective adjustments have been calculated, are connected to risks on Commodities, on Dividends and Variance Swaps, FOI (Consumer price index for blue and white-collar worker households) inflation and options on inflation, on specific indexes such as Rendistato, volatility of 12-month cap indexes, correlations between swap rates and "quanto" correlation (connected to pay offs and index-linking expressed in different currencies).
The management process of the Mark-to-Market Adjustment is formalised with appropriate calculation methodologies on the basis of the different configurations of the points set out above. Calculation of the adjustments depends on the dynamics of the factors indicated above and is disciplined by the Risk Management Department. The criteria for the release are subordinated to the elimination of the factors indicated above and disciplined by the Risk Management Department. Such processes are a combination of quantitative elements that are rigidly specified and qualitative elements, valued based on the different configuration over time of the risk factors which generated the adjustments. Thus, the estimates subsequent to initial recognition are always guided by the mitigation or elimination of said risks.
For new products, the decision to apply Mark-to-Market Adjustment processes is taken during the new product approval process, upon the proposal of the Financial and Market Risks Department.

Fair value hierarchy

Assets and liabilities measured at fair value on a recurring basis: fair value by level

(millions of euro)

Financial assets / liabilities at fair value	30.06.2017			31.12.2016		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
1. Financial assets held for trading	13,777	29,847	791	10,685	31,978	950
of which: Equities	*686*	-	-	*885*	-	-
of which: quotas of UCI	*803*	*49*	*151*	*584*	*86*	*165*
2. Financial assets designated at fair value through profit or loss	68,521	1,026	471	62,341	1,072	452
of which: Equities	*1,408*	-	-	*1,295*	-	-
of which: quotas of UCI	*63,128*	-	*126*	*57,438*	-	*127*
3. Financial assets available for sale	135,514	6,071	2,977	137,354	6,341	2,997
of which: Equities	*2,158*	*2,525*	*967*	*1,765*	*2,728*	*970*
of which: quotas of UCI	*8,102*	*102*	*1,475*	*7,942*	*30*	*1,663*
4. Hedging derivatives	-	5,192	17	-	6,214	20
5. Property and equipment	-	-	-	-	-	-
6. Intangible assets	-	-	-	-	-	-
Total	**217,812**	**42,136**	**4,256**	**210,380**	**45,605**	**4,419**
1. Financial liabilities held for trading	13,686	28,579	252	12,983	31,541	266
2. Financial liabilities designated at fair value through profit or loss	-	63,017	-	-	57,187	-
3. Hedging derivatives	-	8,250	4	-	9,024	4
Total	**13,686**	**99,846**	**256**	**12,983**	**97,752**	**270**

Figures restated, where necessary, considering the changes in the scope of consolidation and discontinued operations. The figures as at 30 June 2017 include assets and liabilities in relation to the acquired operations of Banca Popolare di Vicenza S.p.a. and Veneto Banca S.p.a. The figures for comparison have not been restated.

As shown in the table, level 3 instruments, which allow for more discretion in fair value measurement, still account for a limited portion of the financial instruments portfolio: 1.6% for financial assets and 0.2% for financial liabilities.
Approximately 82% of financial assets measured at fair value 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 measured at level 3 as detailed below, please note that the following transfers were made during the first half of 2017:

- from level 1 to level 2:
  financial assets held for trading for 54 million euro (book value as at 30 June 2017);
  financial assets designated at fair value through profit and loss for 6 million euro (book value as at 30 June 2017);
  financial assets available for sale for 82 million euro (book value as at 30 June 2017);
  financial liabilities held for trading for 4 million euro (book value as at 30 June 2017).
- from level 2 to level 1:
  financial assets held for trading for 243 million euro (book value as at 30 June 2017);
  financial assets available for sale for 157 million euro (book value as at 30 June 2017);
  financial liabilities held for trading for 114 million euro (book value as at 30 June 2017).

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 the presence 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)

(millions of euro)

	Financial assets held for trading	Financial assets designated at fair value through profit or loss	Financial assets available for sale	Hedging derivatives	Property and equipment	Intangible assets
1. Initial amount	**950**	**452**	**2,997**	**20**	**-**	**-**
2. Increases	**362**	**20**	**1,513**	**-**	**-**	**-**
2.1 Purchases	259	16	636	-	-	-
2.2 Gains recognised in:	35	-	354	-	-	-
2.2.1 Income statement	*35*	-	*6*	-	-	-
- of which capital gains	*21*	-	-	-	-	-
2.2.2 Shareholders' equity	*X*	*X*	*348*	-	-	-
2.3 Transfers from other levels	12	-	84	-	-	-
2.4 Other increases	56	4	439	-	-	-
3. Decreases	**-521**	**-1**	**-1,533**	**-3**	**-**	**-**
3.1 Sales	-226	-1	-135	-	-	-
3.2 Reimbursements	-153	-	-129	-	-	-
3.3 Losses recognized in:	-107	-	-721	-3	-	-
3.3.1 Income statement	*-107*	-	*-519*	*-3*	-	-
- of which capital losses	*-47*	-	*-519*	*-3*	-	-
3.3.2 Shareholders' equity	*X*	*X*	*-202*	-	-	-
3.4 Transfers to other levels	-25	-	-229	-	-	-
3.5 Other decreases	-10	-	-319	-	-	-
4. Final amount	**791**	**471**	**2,977**	**17**	**-**	**-**

The figures as at 30 June 2017 include assets and liabilities in relation to the acquired operations of Banca Popolare di Vicenza S.p.a. and Veneto Banca S.p.a.

"Transfers from other levels" of "Financial assets held for trading" are mainly due to derivative contracts with a positive fair value.

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

(millions of euro)

	Financial liabilities held for trading	Financial liabilities designated at fair value through profit or loss	Hedging derivatives
1. Initial amount	**266**	**-**	**4**
2. Increases	**20**	**-**	**-**
2.1 Issues	-	-	-
2.2 Losses recognised in:	5	-	-
2.2.1 Income statement	*5*	-	-
- of which capital losses	*5*	-	-
2.2.2 Shareholders' equity	*X*	*X*	-
2.3 Transfers from other levels	5	-	-
2.4 Other increases	10	-	-
3. Decreases	**-34**	**-**	**-**
3.1 Reimbursements	-	-	-
3.2 Repurchases	-	-	-
3.3 Gains recognised in:	-34	-	-
3.3.1 Income statement	*-34*	-	-
- of which capital gains	*-21*	-	-
3.3.2 Shareholders' equity	*X*	*X*	-
3.4 Transfers to other levels	-	-	-
3.5 Other decreases	-	-	-
4. Final amount	**252**	**-**	**4**

The figures as at 30 June 2017 include assets and liabilities in relation to the acquired operations of Banca Popolare di Vicenza S.p.a. and Veneto Banca S.p.a.

"Financial liabilities held for trading" refer to derivative contracts with a negative fair value.

Assets and liabilities not measured at fair value or measured at fair value on a non-recurring basis: fair value by level

(millions of euro)

Assets/liabilities not measured at fair value or measured at fair value on a non-recurring basis	30.06.2017		31.12.2016	
	Book value	Fair value	Book value	Fair value
1. Investments held to maturity	2,305	2,325	1,241	1,288
2. Due from banks	78,147	78,026	53,146	53,033
3. Loans to customers	393,517	402,921	364,713	375,241
4. Investment property	164	197	136	155
5. Non-current assets held for sale and discontinued operations	426	310	312	315
Total	**474,559**	**483,779**	**419,548**	**430,032**
1. Due to banks	101,450	102,153	72,641	72,209
2. Due to customers	304,518	304,873	291,876	292,408
3. Securities issued	101,499	103,679	94,783	95,745
4. Liabilities associated with non-current assets	267	277	272	272
Total	**507,734**	**510,982**	**459,572**	**460,634**

Figures restated, where necessary, considering the changes in the scope of consolidation and discontinued operations. The figures as at 30 June 2017 include assets and liabilities in relation to the acquired operations of Banca Popolare di Vicenza S.p.a. and Veneto Banca S.p.a. The figures for comparison have not been restated.

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
Held for trading and available for sale securities	Credit spread	-185	1 bp
Held for trading and available for sale securities	Correlation	-4	1%
Held for trading and available for sale securities	CPR	-18	1%
Held for trading and available for sale securities	Recovery rate	-53	-1%
OTC Derivatives - Interest Rates	Correlation for spread options between swap rates	-370	0.10
OTC Derivatives - Equity	Correlation between underlying equity baskets	-114	0.10
OTC Derivatives - Equity	Historical volatility	-798	10%
OTC Derivatives - Interest Rate	Volatility for JPY swaption	-403	10%

The sensitivity analysis performed on level 3 structured credit products highlights a negative change in fair value, referring to complex credit derivatives, for an amount not material[1] when the following parameters change:

- risk-neutral probability of default derived from market spreads (10%);
- recovery rate (from 5% to 25%, based on the type of risk of the underlying product);
- correlation between the value of collateral present in the structure (from 25% to 80%, based on the type of risk of the underlying product);
- expected residual life of the contract (one-year increase over the expected term).

Information on "Day one profit/loss"

Under IAS 39, 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).

[1] This amount is shown net of the adjustments to valuations relating to the main input parameters which were already considered to determine the fair value of financial instruments (see paragraph "Fair value measurement" above).

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 DOP amount trend deferred in the balance sheet, indicating the portion taken to the income statement.

(millions of euro)

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

INFORMATION ON STRUCTURED CREDIT PRODUCTS

The risk exposure to structured credit products amounted to 2,229 million euro as at 30 June 2017, with respect to funded and unfunded ABSs/CDOs; excluding the positions coming from the acquisition of the segregated scope formerly held by Banca Popolare di Vicenza and Veneto Banca for 217 million euro, the exposure stands at 2,012 million euro compared to 2,471 million euro as at 31 December 2016. The exposure with respect to structured packages as at 30 June 2017 is equal to 2 million euro. It was 7 million euro on 31 December 2016.

The strategy regarding the portfolio in question in 2017 focused on investments to exploit market opportunities, on the one hand, and on disposing of the portfolio hard hit by the financial crisis, which is now managed by Capital Light Bank, on the other.

The exposure to funded and unfunded ABSs/CDOs designated at fair value, excluding the positions coming from the Venetian banks for 20 million euro, dropped from 2,081 million euro in December 2016 to 1,782 million euro in June 2017. The decrease is attributable to sales and redemptions of ABSs by Banca IMI and of European ABSs/CDOs by the Parent Company, only partially offset by investments in ABSs of Banca IMI (part of which were classified to the available-for-sale portfolio) and in European ABSs/CDOs acquired by the Parent Company and classified to the trading portfolio.
Banca IMI's investments mainly consist of securities with underlying residential mortgages and CLOs with mainly AA ratings, while the Parent Company confirmed its transactions in European RMBS with mainly AAA ratings, aimed at seizing market opportunities.
The exposure represented by securities classified under the loan portfolio, excluding the positions coming from the Venetian banks for 197 million euro, recorded a decrease (from 390 million euro in December 2016 to 230 million euro in June 2017) attributable in equal measure to the sales that concerned the portfolio of Banca IMI and of the Parent Company.

The decrease in the exposure of structured packages is attributable to sales during the period.

From the perspective of the income statement, a profit of +21 million euro was posted for the first half of 2017, against the +13 million euro for 2016.
As at 30 June 2017 the “Profits (losses) on trading – caption 80” of the exposure to funded and unfunded ABSs/CDOs came to +12 million euro (+12 million euro in 2016), generated by the positions in funded European and U.S. ABSs/CDOs, while positions in multi-sector CDOs and U.S. subprime had a nil result.
The exposure to funded and unfunded ABSs/CDOs in securities classified by the subsidiary Banca IMI in the available-for-sale portfolio recorded a net decrease in fair value of 2 million euro in 2017, accounted for in the specific Shareholders’ Equity Reserve (from a reserve at the end of December 2016 of +5 million euro to a reserve of +3 million euro in June 2017) and an impact on the income statement for sales made in the period of +1 million euro (+5 million euro in 2016). As at 30 June 2017, securities classified under the Loan portfolio recorded a net impact of +1 million euro (-6 million euro in 2016) referring to gains on disposals for +3 million euro and value adjustments due to impairment for -2 million euro.

For the “Monoline risk” and “Non-monoline packages” the contribution to “Profits (Losses) on trading – caption 80” of +7 million euro as at 30 June 2017 mostly refers to the sales taking place and is compared with the +2 million euro profit recorded as at 31 December 2016.

INFORMATION ON ACTIVITIES PERFORMED THROUGH SPECIAL PURPOSE ENTITIES (SPEs)

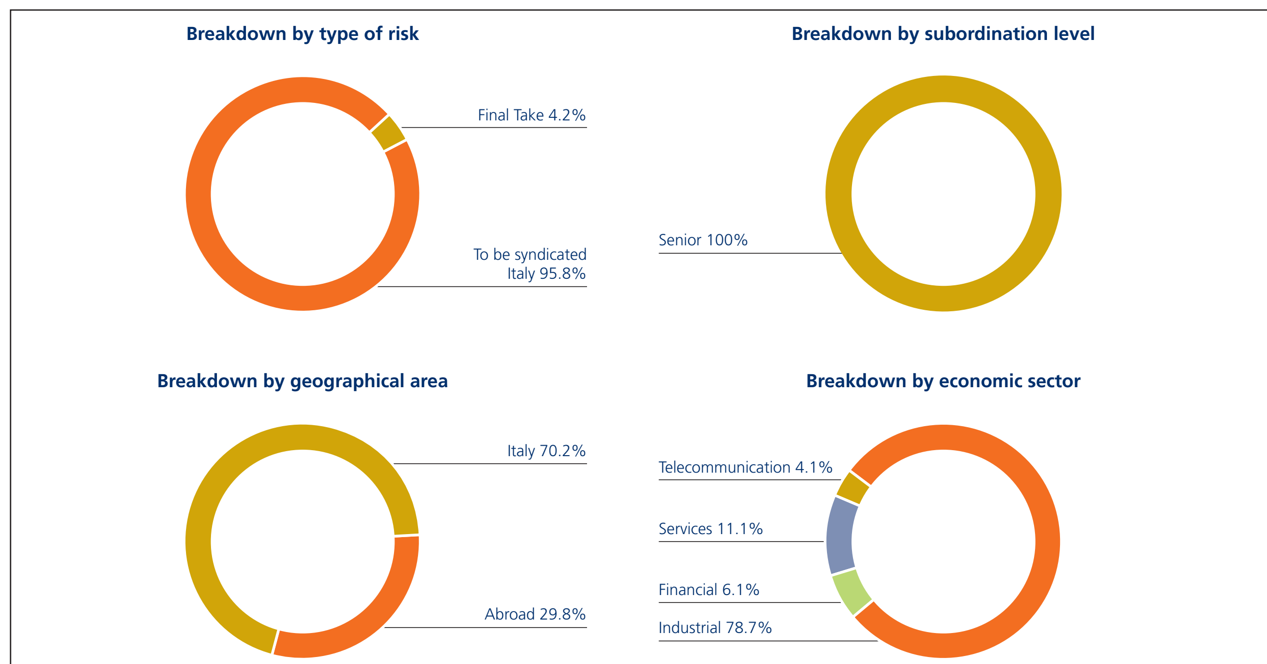
For the purpose of this analysis, legal entities established to pursue a specific, clearly defined and limited objective (raising funds on the market, acquiring/selling/managing assets both for asset securitisations, acquisition of funding through self-securitisations and the issue of covered bonds, 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 2016 financial statements.

During the first half of the 2017, within the framework of the multi-originator programme guaranteed by ISP OBG, the two series expiring in 2017 - the 9th and 10th series - were redeemed in advance in February, each for an amount of 1.375 billion euro.
Following these redemptions, the 23rd and 24th series of floating-rate securities were concurrently issued, for the same amounts, maturing in nine and ten years respectively.
All the securities, which are listed on the Luxembourg Stock Exchange and rated A High by DBRS, were subscribed by the Parent Company and are eligible on the Eurosystem.
With reference to the covered bond issue programme guaranteed by ISP CB Pubblico, the 10th series was redeemed partially for an amount of 500 million euro, while in May the 13th series was issued for 1.650 billion euro, at a floating rate and maturing in 7 years.
The securities, which are listed on the Luxembourg Stock Exchange and rated A1 by Moody’s, were subscribed by the Parent Company and are eligible on the Eurosystem.
As part of the covered bond issue programme guaranteed by ISP CB Ipotecario, in June a new issue of covered bonds was placed on the institutional market, the 22nd fixed-rate series, for 1 billion euro and a 10-year maturity. The securities are listed on the Luxembourg Stock Exchange and rated Aa2 by Moody's.

There were no significant changes to the other categories of SPEs subject to disclosure. Accordingly, reference should be made to the 2016 financial statements.

INFORMATION ON LEVERAGED FINANCE TRANSACTIONS

Since there is no univocal and universally agreed-upon definition of leveraged finance transactions, Intesa Sanpaolo decided to include in this category the exposures (loans granted and disbursed in relation to structured financing operations, normally medium/long term) to legal entities in which the majority of share capital is held by private equity funds.
These are mainly positions in support of Leveraged Buy Out projects (therefore with high financial leverage), i.e. linked to the full or partial acquisition of companies through recourse to SPEs. After acquisition of the target company's shares/quotas package, these SPEs are normally merged into the target. The target companies generally have good economic prospects, stable cash flows in the medium term and low original leverage levels. Intesa Sanpaolo has financed entities of this type, as normal borrowers, without acting as sponsor.
None of these SPEs is consolidated, since the guarantees to support the transaction are solely instrumental for the granting of the financing and are never directed to the acquisition of direct or indirect control over the vehicle.
As at 30 June 2017, 102 transactions for a total amount granted of 2,599 million euro met the above definition.
These exposures are classified under the loans portfolio. They also include the portions of syndicated loans underwritten or under syndication. In line with disclosure requirements, breakdown of exposures by geographical area, economic sector and by level of subordination is set out below.



INFORMATION ON INVESTMENTS IN HEDGE FUNDS

The hedge fund portfolio held for trading as at 30 June 2017 totalled 310 million euro, compared to 352 million euro recorded in December 2016, 80% of which were funds on the MAP platform, and 502 million euro in June 2016.
The reduction of the portfolio is attributable to the distributions and redemptions that took place starting from the second quarter of last year and continuing in the first half of this year, aimed at reducing the risk level of the exposure.
In particular, the most significant redemptions in the first half concerned the MAP 5A Fund for 13.5 million dollars, the Eurizon Penghua Fund for almost 12 million and, to a lesser extent, the Mount Kellett 14th MAF Fund and the Cyrus Opportunities Fund.
As at the same date, the economic result of the investments in this segment was positive, standing at 8 million euro, compared to the negative 44 million euro of "Profits (Losses) on trading – caption 80" in the first half of 2016, caused by severe turbulence on the markets. This profit of 8 million euro is mainly attributable to the improvement in the NAV of the MAP 19, 4A and 1A funds and to the CIMA Fund.
Overall, the portfolio's strategy remains oriented towards benefiting from the occurrence of specific corporate events, largely independent of the general trend, and the reduction of risk through a general downwards revision of allocations of individual funds in response to continued market uncertainty.

INFORMATION ON TRADING TRANSACTIONS IN DERIVATIVES WITH CUSTOMERS

Considering relations with customers only, as at 30 June 2017, 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 6,878 million euro (of which 101 million euro from the Venetian banks), compared to 7,532 million euro as at 31 December 2016. The notional value of these derivatives totalled 48,050 million euro (of which 2,261 million euro from the Venetian banks) and 47,698 million euro as at 31 December 2016. Of these, the notional value of plain vanilla contracts was 46,215 million euro (of which 2,212 million euro from the Venetian banks and 44,451 million euro as at 31 December 2016), while that of structured contracts was 3,382 million euro (of which 49 million euro from the Venetian banks) and 3,247 million euro as at 31 December 2016.
Please note that the positive fair value of contracts outstanding with the 10 customers with the highest exposures came to 4,783 million euro (5,175 million euro as at 31 December 2016), of which 449 million euro (463 million euro as at 31 December 2016) 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 1,397 million euro as at 30 June 2017 (of which 51 million euro from the Venetian banks) and 1,971 million euro as at 31 December 2016. The notional value of these derivatives totalled 26,225 million euro (of which 1,600 from the Venetian banks) and 22,030 million euro as at 31 December 2016. Of these, the notional value of plain vanilla contracts was 22,016 million euro (of which 1,599 million euro from the Venetian banks) and 18,745 million euro as at 31 December 2016 and that of structured contracts was 1,530 million euro (of which 1 million euro from the Venetian banks) and 3,285 million euro as at 31 December 2016.
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 2017, this led to a positive effect of 47 million euro being recorded under "Profits (Losses) on trading" in the income statement.

As regards the means of calculation, for the various methodologies used in the determination of the fair value of financial instruments, see the specific paragraphs in this chapter.
Please note that contracts made up of combinations of more elementary derivative instruments have been 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 defined as the risk of suffering losses due to inadequacy or failures of processes, human resources and internal systems, or as a result of external events. Operational risk includes legal risk, that is, the risk of losses deriving from breach of laws or regulations, contractual or out-of-contract liability or other disputes; ICT (Information and Communication Technology) risk; compliance risk, for the economic sanctions and losses part, and model risk. Strategic and reputational risks are not included.

The Intesa Sanpaolo Group has for some time defined the overall operational risk management framework by setting up a Group policy and organisational processes for measuring, managing and controlling operational risk.
With regard to operational risk, on 31 December 2009, the Group adopted the Advanced Measurement Approach (AMA - internal model), in partial use with the standardised (TSA) and basic approaches (BIA) to determine the associated capital requirement for regulatory purposes. The AMA approach was adopted by the leading banks and companies in the Banca dei Territori, Corporate and Investment Banking, Private Banking and Asset Management Divisions, by the Intesa Sanpaolo Group Services consortium, by VUB Banka (including Consumer Financial Holding and VUB Leasing) and PBZ Banka.
The control of the Group's operational risk was attributed to the Board of Directors, which identifies risk management policies, and to the Management Control Committee, which is in charge of their approval and verification, as well as of the guarantee of the functionality, efficiency and effectiveness of the risk management and control system.
Moreover, the tasks of the Intesa Sanpaolo Group Internal Control Coordination and Operational Risk Committee include periodically reviewing the overall operational risk profile, authorising any corrective measures, coordinating and monitoring the effectiveness of the main mitigation activities and approving operational risk transfer strategies.
The Group has a centralised function within the Enterprise Risk Management Department for management of the Group’s operational risk. This function is responsible for the definition, implementation, and monitoring of the methodological and organisational framework, as well as for the measurement of the risk profile, the verification of mitigation effectiveness and reporting to Top Management.
In compliance with current requirements, the individual organisational units are responsible for identifying, assessing, managing and mitigating risks. Specific officers and departments have been identified within these organisational units to be responsible for Operational Risk Management (structured collection of information relative to operational events, scenario analyses and evaluation of the business environment and internal control factors).
The Self-diagnosis Process, conducted on an annual basis, allows the Group to:
- identify, measure, monitor and mitigate operational risk through identification of the main critical issues and definition of the most appropriate mitigation actions;
- analyse exposure to ICT risk;
- create significant synergies with the Information Security Governance and Business Continuity Sub-department, which supervises the planning of operational processes, IT security and business continuity issues, with the Administrative and Financial Governance and with control functions (Compliance and Internal Auditing) that supervise specific regulations and issues (Legislative Decree 231/01, Law 262/05) or conduct tests on the effectiveness of controls of company processes.

The Self-diagnosis process identified a good overall level of control of operational risks and contributed to enhancing the diffusion of a business culture focused on the ongoing control of these risks.
The process of collecting data on operational events (in particular operational losses, obtained from both internal and external sources) provides significant information on the exposure. It also contributes to building knowledge and understanding of the exposure to operational risk, on the one hand, and assessing the effectiveness or potential weaknesses of the internal control system, on the other hand. The internal model for calculating capital absorption is conceived in such a way as to combine all the main sources of quantitative (operational losses) and qualitative (Self-diagnosis) information.
The quantitative component is based on an analysis of historical data concerning internal events (recorded by the organisational units, appropriately verified by the Head Office Department and managed by a dedicated IT system) and external events (by the Operational Riskdata eXchange Association).
The qualitative component (scenario analysis) focuses on the forward-looking assessment of the risk exposure of each unit and is based on the structured, organised collection of subjective estimates expressed directly by management (subsidiaries, Parent Company’s business areas, the Corporate Centre) with the objective of assessing the potential economic impact of particularly severe operational events.
Capital-at-risk is therefore identified as the minimum amount at Group level required to bear the maximum potential loss (worst case); Capital-at-risk 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 business environment (Business Environment Evaluation), to take into account the effectiveness of internal controls in the various organisational units.
Operational risks are monitored by an integrated reporting system, which provides management with support information for managing and/or mitigating the operational risk.
In order to support the operational risk management process on a continuous basis, a structured training programme was implemented for employees actively involved in this process.
In addition, the Group activated a traditional operational risk transfer policy (to protect against offences such as employee disloyalty, theft and damage, cash and valuables in transit losses, computer fraud, forgery, cyber-crimes, earthquake and fire, and third-party liability), which contributes to mitigating exposure to operational risk. At the end of June 2013, in order to allow optimum use of the available operational risk transfer tools and to take advantage of the capital benefits, pursuant to applicable regulations, the Group subscribed an insurance coverage policy named Operational Risk Insurance Programme, which offers additional coverage to traditional policies, significantly increasing the limit of liability, transferring the risk of significant operational losses to the insurance market.
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.

To determine its capital requirements, the Group employs a combination of the methods allowed under applicable regulations. The capital absorption resulting from this process amounts to 1,658 million euro as at 30 June 2017, up from 1,563 million euro as at 31 December 2016; the increase was mostly due to the inclusion of the operational risks requirements for Veneto Banca and Banca Popolare di Vicenza.

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.

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.

No new significant legal disputes were initiated during the half year.

The significant developments in the main legal disputes reported in the Notes to the 2016 Financial Statements are described below. Please refer to said Notes for a description of the disputes.

Alis Holding lawsuit - Following complex negotiations, in the month of July an out-of-court settlement was finalised between Intesa Sanpaolo and Alis Holding to close the action for damages lodged by the latter (with a claim of 127.6 million euro) for alleged liability of the Bank with respect to Cargoitalia (a company held jointly by Alis Holding, with 66.67%, and Intesa Sanpaolo, with 33.33%).
The settlement was also made with the ‘arrangement with creditors’ procedure of Cargoitalia, which in 2016 joined the proceedings claiming compensation from the Bank.
Thanks to the settlement, Intesa Sanpaolo paid a much smaller sum than the initial demand; the amount paid was completely covered by a provision.

SEC and DOJ proceedings against IMI Securities Corp. of New York – At the end of the half year, the discussions between SEC (Securities and Exchange Commission - (the U.S. financial market supervisory authority) and IMI SEC came to a close. After complex negotiations aimed at mitigating as much as possible the risk of sanctions due to breach of control obligations in the business area of pre-released ADRs (depositary receipts of shares issued by non-US companies), pursuant to Section 15(b)(4)(E) of the Exchange Act and to Section 17(a)(3) of the Securities Act, a settlement agreement was reached, which the SEC investigation department has assessed favourably, involving the payment of the total sum of 35 million dollars, entirely covered by a provision. We expect SEC to approve the settlement. As to the investigation launched in October 2016 by the Antitrust Division of the Department of Justice (DoJ), concerning the same business area of pre-released ADRs, for alleged cartel among certain broker-dealers – including IMI SEC – there have been no developments.

Tax litigation

With regard to tax disputes in the first half of 2017, Intesa Sanpaolo has incurred no new disputes for significant amounts. However, it should be noted that on 15 May 2017 a general tax audit was launched by the Piedmont Regional Office - Large Taxpayers Office, concerning tax period 2014.

The main developments in the tax disputes already under way at the end of 2016 concerning the Parent Company are reported hereunder.

With respect to the disputes concerning the recovery of registration tax on contributions of company assets and the subsequent sale of equity investments, reclassified by the tax authorities as transfer of business units, the Regional Tax Commission of Milan issued three rulings in our favour, filed on 20 February 2017, 25 May 2017 and 7 June 2017. The first tax dispute, having an approximate value of 2 million euro, concerns the reclassification of a transaction involving Cassa di Risparmio del Veneto, Cassa di Risparmio di Parma e Piacenza and Banca Popolare Friuladria; the second dispute (with a value of 1.7 million euro) concerns the reclassification of a transaction between Cassa di Risparmio di Firenze and Cassa di Risparmio di Parma e Piacenza; the third, with an approximate value of 28 million euro, concerns the assessment of the higher value of the company with regard to the securities services business line contributed to Intesa Sanpaolo Servizi Transazionali (which has since been sold to State Street Bank GMBH). Even though the rulings of the lower courts have all been in our favour except for one, in this type of cases Intesa Sanpaolo prudentially considers the often unfavourable rulings of the Court of Cassation, and has made provisions to cover potential charges, calculated taking into account joint liability (with the counterparties) and the clauses of the equity sale agreements, which generally make it possible to pass on to the buyer the taxes applying to the transaction.

On 20 April 2017, the Tax Authority lodged an appeal with the Court of Cassation in a tax dispute concerning IRES (corporate income tax) and IRAP (regional tax on production) for 2008, on which the first and second instance courts had ruled in Intesa Sanpaolo’s favour. The Bank then filed its defence. Differently from the Bank, the Tax Authority considers as charges equivalent for tax purposes to interest payable - subject to a limited 97% deductibility - the negative components of the fair value hedging derivatives of liabilities consisting of bonds and deposits (recognised under caption 90 of the income statement “Fair value adjustments in hedge accounting”). The aggregate value of the two joined tax disputes is 1.2 million euro as to IRES tax and 0.27 million euro as to IRAP tax, plus interest.

As concerns the reimbursement of tax credits, total credits of 105 million euro have been confirmed and partly reimbursed; they consist mainly of positions of the former Cassa di Risparmio della Puglia for IRPEG (former corporation tax) and ILOR (former local tax on earnings) relating to 1985 and 1986, and from 1990 to 1994 (42 million euro in capital, plus interest).

Also for the Group companies, no significant events are reported in the first half of the year.

As to Mediocredito Italiano, the Regional Tax Commission rejected the main appeal lodged by the Revenue Agency and, granting the cross-appeal filed by Mediocredito Italiano, annulled completely the assessment notice issued by the Revenue Agency, Large Taxpayers Office of Lombardy, concerning VAT in 2007 on boat leasing contracts of the former Intesa Leasing (value of the dispute 6.6 million euro including tax and penalties, plus interest).

As regards Intesa Sanpaolo Group Services, on 26 May 2017 the tax assessment concerning IRES and IRAP for tax years from 2011 to 2014 was settled. The assessment concerned the consideration paid for the services of a Group company established in Romania supplying back office services to ISGS. The settlement led to payment of additional taxes of 1.04 million euro (plus interest of about 0.12 million euro), without penalties, and with a reduction of 0.46 million euro from the amount assessed (approximately 30%). Please note that in May 2017 the Revenue Agency office in Turin requested information via a questionnaire on the contribution of a business unit from Intesa Sanpaolo to Intesa Sanpaolo Group Services which took place in 2012; specifically, the information sought concerns the VAT treatment of the consideration for the services provided by Intesa Sanpaolo to some subsidiaries, through the transferred business unit, in the part of the year prior of the transfer, but which were then billed by the transferee company ISGS. To date, the company has received no tax assessment notice in this regard.

Also considering the absence of significant changes compared to 31 December 2016, the tax litigation risks are deemed to be covered by adequate provisions to allowances for risks and charges.

INSURANCE RISKS

Life business

The typical risks of a life insurance portfolio may be divided into three main categories: premium risks, actuarial and demographic risks and reserve risks.
Premium risks are managed initially during definition of the technical features and product pricing and over the life of the instrument by means of periodic checks on sustainability and profitability (both at product level and at portfolio level, including liabilities).
Actuarial and demographic risks are monitored by means of systematic statistical analysis of the evolution of liabilities in its own contract portfolio, divided by risk type, and through simulations of expected profitability of the assets hedging technical reserves.
Reserve risk is monitored through the exact calculation of mathematical reserves, with a series of detailed checks as well as overall verifications, by comparing results with the estimates produced on a monthly basis.
The mathematical reserves are calculated on almost the entire portfolio, on a contract-by-contract basis, and the methodology used to determine the reserves takes account of all the future commitments of the company.

Non-life business

The risks of the non-life insurance portfolio are essentially premium risk and reserve risk.
Premium risks are managed initially during definition of the technical features and product pricing and over the life of the instrument by means of periodic checks on sustainability and profitability (both at product level and at portfolio level, including liabilities).
Reserve risk is monitored through the exact calculation of technical reserves.

Financial risks

In line with the growing focus in the insurance sector on the issues of value, risk and capital in recent years, a series of initiatives has been launched with the objective of both strengthening risk governance and managing and controlling financial risks.
With reference to investment portfolios, set up both as coverage of obligations with the insured and in relation to free capital, the Investment Framework Resolution is the main control and monitoring instrument for market and credit risks.
The Resolution defines the goals and the operating limits that are needed to distinguish the investments in terms of eligible assets and asset allocation, breakdown by rating classes and credit risk, concentration risk by issuer and sector, and market risks, in turn measured in terms of sensitivity to variations in risk factors and Value at Risk (VaR).

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 2017, the investment portfolios of Group companies, recorded at book value, amounted to 151,639 million euro. Of these, a part amounting to 83,132 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 68,506 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, 86.5% of assets, i.e. approximately 71,937 million euro, were bonds, whereas assets subject to equity risk represented 2.1 % of the total and amounted to 1,745 million euro. The remainder (9,514 million euro) consisted of investments relating to UCI, Private Equity and Hedge Funds (11.4%).
The carrying value of derivatives came to approximately -63 million euro, almost entirely relating to effective management derivatives.[2]. The hedging derivatives amounted to a total of approximately 0.5 million euro.
At the end of the first six months of 2017, investments made with the free capital of Intesa Sanpaolo Vita and Fideuram Vita amounted to approximately 1,463 million euro at market value, and presented a risk in terms of VaR (99% confidence level, 10-day holding period) of approximately 32 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 4,503 million euro.
The distribution of the portfolio by rating class is as follows. AAA/AA bonds represented approximately 3.9% of total investments and A bonds approximately 5.5%. Low investment grade securities (BBB) were approximately 87.8% of the total and the portion of speculative grade or unrated was minimal (approximately 2.7%).
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 75.3% of the total investments, while financial companies (mostly banks) contributed almost 13.4% of exposure and industrial securities made up approximately 11.3 %.

At the end of the first half of 2017, 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 4,125 million euro, with 3,210 million euro due to government issuers and 915 million euro to corporate issuers (financial institutions and industrial companies).

[2] 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.