Risk management

THE BASIC PRINCIPLES OF RISK MANAGEMENT

The policies relating to risk taking and the processes for the management of the risks to which the Group is or could be exposed are approved by the Board of Directors of Intesa Sanpaolo as the Parent Company, with the support of the Risks and Sustainability Committee. The Management Control Committee, which is the body with control functions, supervises the adequacy, efficiency, functionality and reliability of the risk management process and of the Risk Appetite Framework.
The Managing Director and CEO has the power to submit proposals for the adoption of resolutions concerning the risk system and implements all the resolutions of the Board of Directors, with particular reference to the implementation of the strategic guidelines, the RAF and the risk governance policies.
The Corporate Bodies also benefit from the action of some managerial committees on risk management. These committees, which include the Steering Committee, operate in compliance with the primary responsibilities of the Corporate Bodies regarding the internal control system and the prerogatives of corporate control functions, and in particular the risk control function.
The Chief Risk Officer Governance Area, directly reporting to the Managing Director and CEO, in which the risk management functions are concentrated, including the controls on the risk management and internal validation process, represents a relevant component of the "second line of defence" of the internal control system that is separate and independent from the business supporting functions. This Area is responsible for: (i) governing the macro process of definition, approval, control and implementation of the Group's Risk Appetite Framework with the support of the other corporate functions involved; (ii) assisting the Corporate Bodies in setting and implementing the Group's risk management guidelines and policies, in accordance with the company's strategies and objectives; (iii) coordinating and verifying their implementation by the responsible units of the Group, also within the various corporate areas; (iv) guaranteeing the measurement and control of the Group's exposure to various types of risk and (v) implementing the II level controls on credit and other risks, in addition to ensuring the validation of internal risk measurement and management systems.
The Parent Company performs a guidance and coordination role with respect to the Group companies[36], aimed at ensuring effective and efficient risk management at Group level, exercising responsibility in setting the guidelines and methodological rules for the risk management process, and pursuing, in particular, integrated information at Group level to the Bodies of the Parent Company, with regard to the completeness, adequacy, functioning and reliability of internal control system. For the corporate control functions in particular, there are two different types of models within the Group: (i) the centralised management model based on the centralisation of the activities at the Parent Company and (ii) the decentralised management model that involves the presence of locally established corporate control functions that conduct their activities under the direction and coordination of the same corporate control functions of the Parent Company, to which they report in functional terms.
Irrespective of the control model adopted within their company, the Corporate Bodies of the Group companies are aware of the choices made by the Parent Company and are responsible for the implementation, within their respective organisations, of the control strategies and policies pursued and promoting their integration within the Group controls.
The risk measurement and management tools contribute to defining a risk-monitoring framework at Group level, capable of assessing the risks assumed by the Group from a regulatory and economic point of view. The level of absorption of economic capital, defined as the maximum "unexpected" loss the Group might incur over a year, is a key measure for determining the Group's financial structure, risk appetite and for guiding operations, ensuring a balance between risks assumed and shareholder returns. It is estimated on the basis of the current situation and also as a forecast, based on the budget assumptions and projected economic scenario. The assessment of capital is included in business reporting and is submitted quarterly to the Steering Committee, the Risk and Sustainability Committee and the Board of Directors, as part of the Tableau de Bord of the Group Risks. 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.

It is worth noting that the Group is carefully monitoring the evolution of the repercussions of the crisis on the real economy and the main financial variables, also by conducting specific scenario analyses and stress tests to assess the potential impacts in terms of earnings and capital adequacy. These analyses focus both on the direct effects, such as the deterioration of assets in the countries involved, and the indirect effects, including the effects on the Group's other customers deriving from the changes in the economic and financial environment. Although the situation is constantly evolving, leaving aside extreme scenarios of conflict escalation that could lead to outcomes that are currently difficult to assess, these analyses have found that the Group would be able to ensure compliance – also through the implementation of specific actions – with the regulatory requirements and the stricter limits set internally.

[36] In this regard, it is specified that Intesa Sanpaolo does not exercise management and coordination over Risanamento S.p.A. or its subsidiaries pursuant to Articles 2497 *et seq.* of the Italian Civil Code.

THE BASEL 3 REGULATIONS

In view of compliance with the reforms of the previous accord by the Basel Committee ("Basel 3"), the Intesa Sanpaolo Group has undertaken adequate project initiatives, expanding the objectives of the Basel 2 Project in order to improve the measurement systems and the related risk management systems.
With regard to credit risk, there were no changes with respect to the situation as of December 2021. The periodic updating and alignment to changes in regulations governing IRB systems and their extension continue in accordance with the Regulatory Roadmap agreed with the Supervisory Authorities.

The situation as at 30 June 2022 is shown in the following table:

Portfolio	PD - Model Type	LGD - Model Type	EAD - Model Type	Status
Sovereign	Shadow model based on agency rating	Model based on recovery rates estimated by rating agencies	Regulatory parameters	Used for management purposes only; Standardised approach for reporting purposes
Institutions	Default model (Banks) [4]	Market model (Banks)	Regulatory parameters (Banks)	AIRB authorised since June 2017
	Default model (Municipalities and Provinces) Shadow model (Regions) [4]	Workout model (Municipalities, Provinces, Regions)	Regulatory parameters (Municipalities, Provinces, Regions)	AIRB authorised since June 2017
Corporate	Default model (Corporate)	Workout model (Bank products; Leasing and Factoring)	CCF/K factor model (Bank products) Regulatory parameters (Leasing and Factoring)	FIRB authorised since December 2008, AIRB LGD authorised since December 2010, EAD authorised since September 2017 [1]
	Simulation models (Specialised Lending)	Simulation models (Specialised Lending)	Regulatory parameters (Specialised Lending)	AIRB authorised since June 2012
	Expert-Based Model (Non-Banking Fin. Inst.)	Regulatory parameters (Non-Banking Fin. Inst.)	Regulatory parameters (Non-Banking Fin. Inst.)	Used for management purposes only; Standardised approach for reporting purposes
Retail	Default model (Retail)	Workout model (Retail)	CCF/K factor model (Retail)	IRB Retail since September 2018 [2]
	Default model (Retail SME)	Workout model (Retail SME)	CCF/ K factor model (Retail SME)	AIRB authorised since December 2012 [3]

1) ISP authorised for FIRB from December 2008, for LGD AIRB from December 2010 and for EAD from 2017, Banca IMI (2012, merged by incorporation into the Parent company since 2020), ISP Ireland (2010), VUB (2010), Intesa Sanpaolo Bank (2017), and ISP Luxembourg (2017). From 2017, the Corporate model has also been used to calculate the risk on the Banking book equity portfolio with LGD 65%/90%.
2) VUB authorised from June 2012 for PD and LGD of Retail Mortgage models.
3) VUB authorised from June 2014.
4) ISP and Banca IMI (merged by incorporation into the Parent company in 2020) authorised from 2017.

With regard to counterparty risk on derivatives (OTC and ETD) and SFTs, the Group has further improved the measurement and monitoring, by refining the instruments required under Basel 3. For reporting purposes, Intesa Sanpaolo has been authorised to use internal models (both for the determination of Exposure at default for replacement risk and for the CVA capital charge for migration risk). Compared to 31 December 2021, also in relation to specific discussions with the ECB, the following changes were made to the model:
- alignment with art. 162 (par. 2(d)) CRR in determining the maturity used in calculating the requirement for exposures deriving from SFTs, relating to the scope of the internal model;
- removal of eligibility criteria linked to the liquidity and credit rating for securities underlying SFTs, not binding for positions handled in the area of Counterparty Credit Risk pursuant to art. 271 (par. 2) CRR;
- calibration of the expected value of the distributions for exchange rates with the Euro, so that they match the forward prices of those rates.

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. As at 30 June 2022, the scope of the Advanced Measurement Approach is comprised of Intesa Sanpaolo (including the former Banks and Companies deriving from the UBI Banca Group, incorporated into Intesa Sanpaolo during 2021 and the first half of 2022) and the main banks and companies in the Private Banking and Asset Management Divisions, as well as of VUB Bank and PBZ Banka.
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 2022.

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.

THE IMPACTS FOR THE ISP GROUP OF THE MILITARY CONFLICT BETWEEN RUSSIA AND UKRAINE AND THE IMPACTS OF THE SCENARIO RESULTING FROM THE COVID-19 PANDEMIC

Valuation of exposures to counterparties resident in Russia and Ukraine
As stated, as at 30 June 2022 the Group presented the following on-balance sheet exposures to counterparties resident in Russia and Ukraine, net of ECA guarantees and gross of value adjustments carried out:

(millions of euro)

	30.06.2022	
	Russia (1)	Ukraine (2)
Loans to customers	**4,800**	**242**
Banca Intesa Russia	*949*	*-*
Pravex	*-*	*158*
Cross-border exposures	*3,851*	*84*
Due from banks	**581**	**57**
Banca Intesa Russia	*536*	*-*
Pravex	*-*	*57*
Cross-border exposures	*45*	*-*
Securities	**156**	**60**
Banca Intesa Russia	*56*	*-*
Pravex	*-*	*48*
IMI C&IB Division	*37*	*-*
Insurance Division	*63*	*12*

(1) The figures relating to Banca Intesa Russia refer to 31 March 2022, reference date for the consolidation of the subsidiary, valued at the exchange rate of the rouble as at 30 June 2022 (up sharply on the exchange rate as at 31 March 2022). Management data of the subsidiary as at 30 June 2022 show a decrease of 659 million euro in loans to customers.

(2) The figures relating Pravex refer to 31 December 2021, reference date for the consolidation of the subsidiary, valued at the exchange rate of the hryvnia as at 30 June 2022. The management data of the subsidiary as at 30 June 2022 show no significant changes on those as at 31 December 2021.

In addition to the on-balance sheet exposures shown in the table, there are unsecured risks to customers for 370 billion euro at Banca Intesa Russia, and 89 million euro at Pravex, in addition to 293 million euro in cross-border unsecured risks to resident customers (net of ECA).
There are also 200 million euro in cross-border unsecured exposures to resident banks (essentially referring to Russian counterparties).
Moreover, exposures in OTC derivatives amounted to 7 million euro in terms of fair value.
Lastly, cross-border exposures to Ukraine counterparties are covered by guarantees granted by parties in the European Union and the United States.

On the whole, the Group allocated provisions for the impacts deriving from the conflict for a total of 1,126 million euro gross of the tax effect, deriving mainly from existing credit risk to customers, valued based on IFRS 9.
Starting in March 2022, among the areas receiving the greatest attention in terms of credit assessments in the emergency triggered by the conflict in Ukraine, a specific focus was dedicated to the Group’s exposure to counterparties resident in Russia and Ukraine. Specifically, customised measures were implemented to strengthen the oversight of credit risk, also by updating the assessment of creditworthiness, of counterparties with residency or parent companies in the Russian Federation, Belarus or Ukraine. In that context, the deterioration of specific positions was also acknowledged, which were classified among unlikely-to-pay exposures and, as a result, subject to analytical measurement. As at 30 June, those positions regarded counterparties resident in Russia for 324 million euro.

With regard to the portfolio that did not show signs of deterioration, the analyses of the accounting standard and the related Annex show no indications or examples aimed at setting out specific guidelines for the measurement of Expected Credit Losses in contexts of war or defining specific methods of increasing credit risk due to sudden, serious geopolitical crises such as the current one. The most pertinent references to the current scenario seem to be those set out in the Application Guidance of the standard. These allow/suggest the use of collective assessment to verify the existence of a Significant Increase in Credit Risk (SICR) with a view to staging the credit exposures[37], as well as, in line with the treatment set out for capturing the critical issues of another recent emergency situation (COVID-19[38]), using the management overlay in calculating the ECL, to define the most suitable methods to incorporate the aspects linked to the ongoing conflict into provisions.
With specific reference to cross-border positions, the Group thus decided to adopt a valuation approach strongly guided by the emerging geopolitical risk “via transfer”, i.e. the risk that counterparties do not honour their commitments to pay debt following restrictions or decisions by their countries of residence, not due to aspects directly pertaining to their business, thus

[37] In particular, see IFRS 9 B5.5.1, IFRS 9 B5.5.4, IFRS 9 B5.5.5, IFRS 9 B5.5.18 and IFRS 9 B5.5.52.

[38] IFRS 9 and COVID-19 - Accounting for expected credit losses applying IFRS 9 Financial Instruments in the light of current uncertainty resulting from the COVID-19 pandemic.

applied based on the country of residence of the counterparties. That approach was implemented both to determine the SICR and the related classification in Stage 2, and to calculate the ECL by applying a management overlay. This was considered the most appropriate way to incorporate the provisions for country and geopolitical risk related to the current conflict that would otherwise not be properly captured by the risk measurement systems normally used. At the same time, a rating review was conducted on the most significant counterparties exposed to country risk connected with the conflict, which resulted in extensive downgrading of the ratings assigned prior to the start of the conflict.
In detail, the choices made for the purposes of calculating ECL on cross-border exposures were as follows:

- application of PD through the cycle associated with the assigned rating, without forward-looking conditioning. This approach was deemed more prudent, as the conditioning methodology, relating to the approaches currently adopted in the satellite models, would not represent the specific risk linked to the countries in conflict;
- calculation of an additional prudential buffer that ensures equivalence with the use of an estimated loss rate according to an approach based on the transfer of the risk of the country of residence under Pillar II modelling (unconditional LGD set by the transfer risk model of 55%);
- introduction of prudent margins in addition to the ECL estimates deriving from the above elements, in relation to potential further worsening of the credit ratings of Russian counterparties.

These choices were applied consistently to cross-border positions mainly at the Parent Company the international subsidiary banks of the IMI C&IB Division and, for smaller amounts, the banks of the International Subsidiary Banks Division.

With reference to loans to customers disbursed by Pravex, the absolutely serious situation in all of Ukraine also resulted in the definition, for the purpose of measuring the loan portfolio of the subsidiary Ukraine bank, of a highly specific approach, significantly based on rationales which consider the uncertainties and the risk elements associated with the military conflict. That approach was adopted on the entire portfolio of performing loans of Pravex (the bank substantially had no NPLs as at 31 December 2021) to which a specific management overlay was applied at ECL level, which resulted in impairment that brought the coverage ratio to 73% (up compared to the approximately 60% applied as at 31 March, in light of the worsening of the conflict, with resulting impacts on the Ukrainian economy).

With regard to Banca Intesa Russia, specific prudent choices were defined, while also considering the different situation of risk/operations than that of the Ukraine subsidiary. Thus, an approach to classifying and assessing performing loans was adopted that strongly considers the geopolitical risk deriving from the ongoing crisis, which also contributes, according to the most recent indications from the Research Department, to a decrease of 10% in Russia's GDP in 2022 and 1% in 2023. Therefore, the assessments made by the subsidiary in March, based on the indications from the Parent Company and substantially consistent with those adopted for cross-border customers also exposed to the subsidiary were joined by an additional, centrally determined prudent factor that takes account of the worsening of the domestic economic situation in light of the continuation of the conflict, as it is no longer considered possible that it will cease in a short time, and the increased isolation of the Russian economy. As a result of those additional provisions, the total coverage of performing loans of the Russian subsidiary amounted to around 25% of the gross value of loans deriving from the package as at 31 March 2022, used for consolidation as at 30 June 2022. That percentage increases to 30% if the reduction in loans by the subsidiary in the second quarter is considered.
On the whole, during the half year, value adjustments were made to loans of Banca Intesa Russia, Pravex and to the cross-border exposures for 1,093 million euro (of which 178 million euro on positions classified as non-performing loans).

In addition to those impacts deriving from the measurement of the Group's loan portfolio, value adjustments were also posted relating to the limited positions in securities, for a total of 32 million euro (in addition to 8 million euro in negative impacts on the valuation reserves). Lastly, Pravex's real estate assets were written down by 1 million euro (in addition to a further negative impact of 1 million euro on valuation reserves).

Impacts from the COVID-19 pandemic

As regards the support actions adopted by the Group in response to the COVID-19 pandemic, refer to the specific paragraph of the Half-yearly Report on operations.
As indicated in previous reports, the process of gradual restoration of fully ordinary credit processes, with one-to-one assessments was carried out in 2021 with the gradual phase out of the EBA Guidelines on general payment moratoria, and completed in full on 1 April 2022, following the termination of the state of emergency, with full return also of the solutions offered by the Bank's ordinary product catalogue.
In April, the option set out in the "Mille Proroghe Decree" for loans of "30 thousand euro" pursuant to letters m) and m-bis) of Article 13, paragraph 1 of Law Decree no. 23 of 8 April 2020, converted, with amendments, by Law no. 40 of 5 June 2020 was activated, to be requested by the borrower, through agreement between the parties, to defer for a maximum of 6 months the grace period of the loan, whose initial deadline for payment of principal is scheduled in 2022.
With regard to actions related to proactive credit management, in 2021 specific diagnostics were launched on the moratoria portfolio, which continued for the entire year within the Credit Action Plan, with the goal to contain impairment, by activating actions on critical positions. In the second quarter of 2022, a new diagnostics initiative was activated on moratoria expired or expiring in the first half of 2022 which report certain elements of risk. The results of the latter initiative show that for more than 96% of cases there are no significant critical issues or they are monitored with possible actions planned in the third quarter.
As at 30 June 2022, there were around 0.3 billion euro of outstanding moratoria (4.8 billion euro at the end of 2021), in addition to around 0.3 billion euro of terminated moratoria that will reach the term for the resumption of payments in subsequent months (6.7 billion euro as at December 2021). The impact of the significant past due amounts and new defaults continued to remain low. The expired moratoria that had already met the conditions for the resumption of payments the default rate came to around 3%.
As stated in the Half-yearly Report on operations, in the first half there was a significant reduction in the management overlays to cover the vulnerability of the moratoria, given the progressive increase in moratoria that have reached the deadline for resuming payments without displaying any significant problem issues. In particular, the elements of vulnerability

of the exposures subject to moratorium measures considered for the purposes of the Financial Statements as at 31 December 2021 (represented by overlays incorporated into the satellite models and extraordinary triggers for sliding into Stage 2) were revalued, still maintaining suitable prudence, as explained in greater detail in the paragraph "Management overlays and triggers for sliding into Stage 2". To adequately take account of the indirect impacts of the conflict on macro sectors that are particularly exposed to the effect of lasting inflationary pressures on energy products and commodities, a macroeconomic scenario updated based on forward-looking conditioning of the risk parameters was adopted, and management overlays were applied with an increase in estimated default rates on the transport, manufacturing and household sectors as compared to the results of the satellite models, and extraordinary triggers for sliding into Stage 2 were included on vulnerable sectors.

CREDIT RISK

The Intesa Sanpaolo Group's strategies, Risk Appetite Framework, and Powers and Rules for credit granting and management are aimed at:

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

The Group has developed a set of techniques and tools for credit risk measurement and management which ensures analytical control over the quality of loans to customers and financial institutions, and loans subject to country risk.
In particular, with regard to loans to customers, risk measurement is performed by means of different internal rating models according to borrower segment (Corporate, Retail SME, Retail, Sovereigns, Italian Public Sector Entities and Banks). These models make it possible to summarise the counterparty's credit quality in a value, the rating, which reflects the probability of default over a period of one year, adjusted on the basis of the average level of the economic cycle. These ratings are then made comparable with those awarded by rating agencies, by means of a consistent scale of reference.
Ratings and credit-risk mitigating factors (guarantees, loan types and covenants) play a key role in the loan granting and managing process.

The Group has always proactively and prudently managed its risk portfolio. Over the upcoming planning horizon, the Group will pursue a structural de-risking strategy, which was mostly launched during the last Business Plan, placing it among the best in Europe in terms of non-performing loan ratio and stock (Zero-NPL Bank) and generating a net drop in the cost of risk. The latter will always be maintained at a conservative level, due to the extensive reserves of provisions on loans and ongoing prudent credit management.
Compared to 31 December 2021, it is noted that on 27 April, the Group completed a securitisation on portfolios of bad loans, previously sold to a vehicle under Law 130/99, for 3.9 billion euro gross of value adjustments, which comply with the regulatory requirements for bearing a State guarantee (GACS).
The securitisation vehicle issued senior notes and subordinated notes equivalent to 87% and 13% of the price of the portfolio assigned, respectively.
The senior notes have been fully underwritten, and will be retained, by Intesa Sanpaolo. These securities, which have received an investment grade rating from specialist agencies, received a GACS guarantee in June 2022.
The subordinated notes, also initially underwritten by Intesa Sanpaolo, were sold 95% to third-party investors with the remaining 5% retained in compliance with current regulatory requirements, with the resulting full accounting and regulatory derecognition of the portfolio.

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 promptly detecting any symptoms of difficulty and promote corrective measures to prevent possible deterioration.
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 to 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 conducted regardless of the presence of any amounts (or instalments) due and unpaid.
- non-performing past due exposures: this category includes on-balance sheet exposures, other than those classified as bad loans or unlikely to pay that, as at the reporting date, are past due or overdrawn by over 90 days on a continuous basis. The total exposure to a debtor must be recognised as Past Due if, at the reference reporting date, the amount of the principal, interest and/or fees not paid when due exceeds both of the following thresholds (hereinafter, collectively, the "Relevance Thresholds"):
    - the absolute limit of 100 euro for retail exposures and of 500 euro for non-retail exposures (the "Absolute Threshold"), to be compared with the total amount past due from the borrower;
    - the relative limit of 1%, to be compared with the ratio of the total amount past due to the total amount of all on-balance sheet exposures to the same borrower (the "Relative Threshold").

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.

The table below shows the gross exposure, total adjustments and net exposure of Loans to customers in relation to their risk profile.

(millions of euro)

Captions	30.06.2022			31.12.2021			Change
	Gross exposure	Total adjustments	Net exposure	Gross exposure	Total adjustments	Net exposure	Net exposure
Bad loans	3,429	-2,192	1,237	7,194	-5,064	2,130	-893
Unlikely to pay	7,032	-2,655	4,377	7,281	-2,956	4,325	52
Past due loans	687	-146	541	774	-152	622	-81
Non-Performing Loans	**11,148**	**-4,993**	**6,155**	**15,249**	**-8,172**	**7,077**	**-922**
Non-performing loans in Stage 3 (subject to impairment)	*11,107*	*-4,983*	*6,124*	*15,202*	*-8,164*	*7,038*	*-914*
Non-performing loans designated at fair value through profit or loss	*41*	*-10*	*31*	*47*	*-8*	*39*	*-8*
Performing loans	**461,219**	**-2,734**	**458,485**	**454,213**	**-2,453**	**451,760**	**6,725**
Stage 2	*54,920*	*-2,042*	*52,878*	*56,129*	*-1,740*	*54,389*	*-1,511*
Stage 1	*405,254*	*-692*	*404,562*	*397,085*	*-713*	*396,372*	*8,190*
Performing loans designated at fair value through profit or loss	*1,045*	*-*	*1,045*	*999*	*-*	*999*	*46*
Performing loans represented by securities	**6,957**	**-33**	**6,924**	**7,039**	**-24**	**7,015**	**-91**
Stage 2	*1,074*	*-26*	*1,048*	*882*	*-17*	*865*	*183*
Stage 1	*5,883*	*-7*	*5,876*	*6,157*	*-7*	*6,150*	*-274*
Loans held for trading	**85**	**-**	**85**	**19**	**-**	**19**	**66**
Total loans to customers	**479,409**	**-7,760**	**471,649**	**476,520**	**-10,649**	**465,871**	**5,778**
of which forborne performing	***8,424***	***-444***	***7,980***	***8,616***	***-513***	***8,103***	***-123***
of which forborne non-performing	***3,862***	***-1,442***	***2,420***	***4,568***	***-1,924***	***2,644***	***-224***
Loans to customers classified as non-current assets held for sale (*)	**4,127**	**-3,104**	**1,023**	**4,504**	**-3,298**	**1,206**	**-183**

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

(*) As at 30 June 2022 and 31 December 2021, this item related to the portfolios, or single name exposures, of loans classified as bad loans and unlikely to pay to be sold.

As at 30 June 2022, the Group's gross non-performing loans dropped to 11.1 billion euro, down by 4.1 billion euro (-26.9%) since December. Their weight thus decreased to 2.3% from 3.2% at the end of 2021 (1.8% and 2.4% in June 2022 and December 2021, respectively, according to the EBA definition).
This development was made possible by the de-risking initiatives implemented during the period (in that regard, see the information on de-risking initiatives illustrated in the Half-yearly Report), and, specifically, the securitisation of bad loans with GACS guarantees finalised in April for 3.9 billion euro (0.9 billion euro net).
The process of reducing non-performing loans also continues to benefit from new inflows of performing loans which, though slightly recovering, remained at low levels.
During the first six months, gross inflows came 1.9 billion euro, of which 0.7 billion euro in the first quarter and 1.2 billion euro in the second. The latter included 0.3 billion euro relating to Russia-Ukraine exposures classified as unlikely-to-pay. In the first half of 2021, gross inflows were 1.4 billion euro.
In net terms, that is, net of outflows to performing loans, inflows came to 1.4 billion euro (0.4 billion euro in the first three months and 1 billion euro in the second quarter, including the afore-mentioned 0.3 billion euro relating to Russia-Ukraine), compared to 0.9 billion euro in the first half of 2021.
The table shows that the decrease in gross non-performing loans was comprised of 3.8 billion euro in bad loans (-52.3%), relating to the above-mentioned securitisation, and 249 million euro in unlikely-to-pay exposures (-3.4%), despite the mentioned classification of exposures to Russia-Ukraine in that category.
At the end of June 2022, non-performing loans classified under assets held for sale amounted to 4.1 billion euro gross and 1 billion euro net.

Also due to that securitisation, net non-performing loans of the Group amounted to 6.2 billion euro at the end of the half year, a new record low. The reduction from the beginning of the year (-922 million euro; -13%) confirms the virtuous trend already recorded in previous years. The non-performing assets percentage of total net loans to customers amounted to 1.3% (1% according to the EBA definition), a low proportion and further improving on December 2021 (1.5%, 1.2% according to the EBA definition). As the disposals finalised during the period regarded exposures featuring a coverage ratio higher than the average for the specific category, the coverage of non-performing loans dropped to 44.8% from 53.6% at the end of 2021.
In further detail, in June 2022, bad loans amounted to 1.2 billion euro (-41.9%), net of adjustments, representing 0.3% of total net loans with a coverage ratio of 63.9%. Loans included in the unlikely-to-pay category amounted to 4.4 billion euro, up by 1.2%, accounting for 0.9% of total net loans to customers, with a coverage ratio of 37.8%. Past due loans amounted to 541 million euro (-13%), with a coverage ratio of 21.3%. Within the non-performing loan category, forborne exposures, generated by forbearance measures for borrowers experiencing difficulty in meeting their financial obligations, amounted to 2.4 billion euro, with a coverage ratio of 37.3%, while forborne exposures in the performing loans category amounted to 8 billion euro.

At the end of the first half of 2022, net performing loans amounted to 458.5 billion euro, up on December by 6.7 billion euro (+1.5%), recording an increase in total coverage (from 0.54% to 0.59%), which specifically involved loans in Stage 2 (from 3.10% to 3.72%), compared to stable loans in Stage 1 (0.17%).
Net loans in Stage 2 were down by 2.8%, to 52.9 billion euro. Those changes effectively incorporate an increase due to the classifications of Russian and Ukrainian counterparties and Italian counterparties as a result of the worsening of the economic scenario, while also including net decreases – mainly in the domestic scope – due to classifications in Stage 1 also due to the gradual elimination of moratoria with a general restoration of payment terms.

Macroeconomic scenario for forward-looking conditioning

The effects of the Russia-Ukraine war, specifically in terms of the energy market, food products and confidence in the markets, were already subject to an initial assessment and incorporated into the revision of the reference scenario implemented in March 2022. For the Half-yearly Report as at 30 June 2022, the Group carried out a new update of the reference macroeconomic scenario for the purposes of calculating the ECL. Specifically, we emphasise that the continued Russian invasion of Ukraine dealt another blow to an economic context that already showed problems with several global production chains.
The June updates, whose underlying assumptions reflect a generalised slowdown in real growth due to the energy shock, the contraction in the Chinese economy and restrictive monetary policies, contain an upwards revision of inflation rates (considering the ongoing tensions on commodities) and of interest rates (considering the most recent monetary policy decisions and the process of increases implemented also in Europe). The revisions on the central scenario of March were made with substantial stability in the estimates of growth in the gross domestic product previously formulated over the forecast time horizon (2022-2024), and are also in line with those formulated in June 2022 by the ECB and the Bank of Italy.
The baseline forecasts confirm an expansion for the Eurozone, but with greater risks of slowdown. The high levels of inflation, change in monetary policy, impacts of the conflict in Ukraine and the slowdown in the Chinese economy limit the prospects for growth in the upcoming quarters. Nonetheless, the recovery in services, the strength of the labour market and an investment cycle that has not yet concluded should enable the Eurozone to grow by 3% in 2022 and 2.1% in the following year. Inflation should increase further before declining (specifically the core component, currently boosted by the transmission of cost increases). The annual average is estimated at 7.2% in 2022 and 3.6% in 2023. On 9 June 2022, the European Central Bank stated its intention to increase the key interest rates by 25 basis points at its monetary policy meeting in July and to end net asset purchases under the Asset Purchase Programme (APP) on 1 July 2022. Nonetheless, on 21 July, the ECB announced an interest rate hike of 50 basis points instead of 25, not providing indications for the future, except that interest rates will rise further. Those decisions reflect on the projects of short-term interest rates with an increase in Euribor rates, and reflect the intention to combat the continuing unwanted levels of inflation. The most significant deviation from the forecasts of March 2022 relates to interest rates, which incorporate a quicker upwards rise, due to the resizing of the negative risk scenarios for real growth (specifically those relating to the complete, immediate suspension of supplies of Russian gas) and, above all, a new worsening of the outlook for inflation.
In Italy, the manufacturing sector will continue to be penalised by the rises in commodities prices, but construction will remain in an extra-expansive phase, and services have significant room to recover. The forecasts for GDP growth are unchanged on the March 2022 scenario. Following a 2021 better than forecast (the GDP rebounded by 6.6%, almost fully recovering the levels at the end of 2019), in 2022 growth stabilised at 3.0%, following the effects of the commodities price increases. The first quarter of 2022 outperformed expectations, and the economic trend did not show a drastic worsening in the second quarter. The war had a negative impact on confidence indices which, however, had a significant impact almost exclusively on the morale of consumers, which demonstrates that, once again, the almost exclusive channel of impact is inflation shock. On the business side, industry was the most impacted sector, but also in manufacturing, the morale of businesses, though falling, remains expansive and higher than the historical average. Industry entered the new post-war scenario starting from highly expansive business levels (turnover in March reached a record high since the start of the historical series in 2000). In services (and retail sales) a trend of gradual recovery is under way, as a result of the significant decrease in health risk and the resulting recovery in individual mobility. Construction continues to expand significantly. A significant decrease in growth is expected for 2023, to 1.6%, remaining stable at 1.6% in 2024, in line with the forecasts formulated in March.
Inflation, driven by the sharp increases in energy commodities prices, jumped in the initial months of the year, and is expected to stand at an annual average of 6.1% in 2022, in line with the forecasts in March. Once again, energy and food products were largely responsible for the upwards pressures, but a clear increasing trend is also under way for core inflation. As a result of the continuing effects of the international geopolitical crisis on commodity prices, specifically on the prices of oil and, above all, natural gas, inflation will remain high in 2023 and is expected to return to moderate values only in 2024. The increase in real estate prices in the reference scenario, compared to the previous forecast, is attributable to the positive correlation with the trend in inflation forecasts. Nonetheless, the expected trend in real prices worsened on March.

The forecast for the BTP-Bund spread was revised upwards. The revision partially reflects the higher increase in interest rates on the German curve, and the remainder a harsher impact of the political uncertainty relating to the 2023 elections. With regard to the unemployment rate, no significant deviations are expected from the forecasts of March 2022.
For the United States, a baseline scenario of slowdown in growth is expected, only partially offset by internal demand, boosted by household savings and growth in wages, in a context of demand for work still higher than supply. The resulting inflationary trend, accentuated by the throttling of supply, could require particularly restrictive measures from the Federal Reserve.
For the purposes of forward-looking conditioning of ECL parameters, the methodology adopted by the Group entails, in addition to the baseline scenario, alternative (best-case/worst-case) scenarios that reflect the dispersion on the extreme forecasts of Consensus Economics or specific standardised shocks, statistically selected from the time series, for the variables usually not surveyed by Consensus. Specifically, the "worsening" scenario was constructed according to the required methodology, but subsequently including changes that would return a scenario of the global economy gradually sliding into recession, to take account of the increase in that risk compared to the previous forecasts.
In the worsening scenario, the drastic decrease in growth in the GDP in 2023 and in 2024 is associated with higher unemployment rates and inflation substantially stable, but then much lower in the terminal year. It was assumed that the Fed Funds rates and ECB rates will be substantially the same as the baseline scenario up to 2023, but then will decrease in 2024 in the United States, and will remain unchanged at neutral levels in the Eurozone. The trend in stock indices and real estate prices is significantly weaker than the baseline scenario. Real estate prices will fall in Italy, both in 2023 and 2024. The BTP-Bund spread will increase by 16 basis points in 2022, 47 basis points in 2023 and 57 basis points in 2024.
The "best-case" scenario was drawn up based on the higher growth GDP forecasts in the survey by Consensus Economics published in May 2022. For 2023 and 2024 higher real growth rates are expected, inflation aligned with that of the baseline scenario in the first few years and higher in the terminal year, higher interest rates on all maturities, and performance of stock indices and real estate prices significantly more robust than the baseline scenario.
The representation of the main variables and related forecasts used to determine forward-looking credit losses is shown below, in the baseline scenario and the alternative scenarios. The application of the updated scenario resulted in higher adjustments to loans, for an estimated amount of around 80 million euro.

Intesa Sanpaolo macroeconomic scenarios for calculating the ECL as at 30 June 2022

		Baseline			Mild			Severe		
		2022	2023	2024	2022	2023	2024	2022	2023	2024
Euro Area	Equity ESTOXX 50 (% per year)	-1.6	0.8	1.4	3.3	7.1	2.9	-1.9	-1.6	1.9
	EUR/USD (% per year)	-8.4	4.6	4.0	-8.4	5.3	3.0	-8.0	3.9	4.5
	EurIRS 10Y(absolute value)	1.63	2.00	2.09	1.77	2.39	2.63	1.65	2.14	2.21
Italy	Real GDP Italy (% per year)	3.0	1.6	1.6	2.9	2.2	2.5	2.9	0.1	0.1
	CPI Italy (% per year)	6.1	2.7	1.4	6.1	2.6	1.8	6.1	2.6	-0.1
	Residential Property Italy (% per year)	3.0	1.9	1.4	4.9	3.8	4.4	2.3	-2.0	-2.3
	10Y BTP yield (absolute value)	2.92	3.73	3.72	3.04	3.98	4.08	2.94	4.05	4.34
	BTP-Bund Spread 10Y (absolute value)	1.94	2.27	1.97	1.93	2.13	1.79	2.10	2.74	2.54
	Italian Unemployment (absolute value)	8.4	7.8	7.5	8.4	7.8	7.1	8.4	8.2	8.3
USA Area	Real GDP US (% per year)	2.5	1.8	1.6	2.4	2.2	2.8	2.2	0.4	-0.6
	US Unemployment (absolute value)	3.4	3.4	3.7	3.4	3.4	3.3	3.5	3.8	4.6

Management overlays and triggers for sliding into Stage 2

The elements of vulnerability of the exposures subject to moratorium measures considered for the purposes of the Financial Statements as at 31 December 2021 (represented by both overlays incorporated into the satellite models and extraordinary triggers for sliding into Stage 2) were revalued, still maintaining suitable prudence, but considering both the substantial normalisation of forbearance measures, now almost all expired, and the positive evidence from the set of exposures with resumption of payments that has already begun. The overlays incorporated into the satellite models, the parameters used to determine the effect of the reduction in default flows during the period of validity of the moratoria were re-estimated – also through internal observation of the spread between default rates of portfolios with and without moratoria - and transferred to subsequent periods. For extraordinary triggers for sliding into Stage 2, the same logic applied for the purposes of the Financial Statements as at 31 December 2021 was used, updating the scope of application, which shrank due to the reaching of the terms for resumption of payments (note that as at 30 June 2022, moratoria still outstanding came to around 0.3 billion euro and moratoria terminated but whose terms of resumption of payment accrued in the subsequent months to around 0.3 billion euro). The worsening of the macroeconomic context triggered by the crisis was incorporated into the domestic portfolio, both by adopting an updated macroeconomic scenario in the forward-looking conditioning of risk parameters previously described, and also through additional management overlays with an increase in default rates on the transport, manufacturing and households sectors compared to the results of the satellite models. This aimed at adequately taking account of the indirect impacts of the conflict on macro sectors that are particularly exposed to the effect of lasting inflationary pressures on energy products and commodities. Moreover, extraordinary triggers for sliding into Stage 2 were introduced, in the presence of sector-specific vulnerability and risk levels higher than specific set thresholds, which substantially offset the lower effect of those previously set out, and correlated with the presence of moratoria that have not expired or have terms of restoration of payment that have not passed.

On the whole, the actions relating to management overlays generated releases of provisions of around 300 million euro in the first quarter of the year, with a residual value as at 30 June 2022 of around 400 million euro.

ECL sensitivity analysis
The ECL, calculated in accordance with IFRS 9, was subject to sensitivity analysis aimed at analysing its variability with respect to the individual alternative scenarios. That analysis was conducted on a performing loan portfolio (Stage 1 and Stage 2) relating to the scope representing the Group (which includes the Parent Company and the Banks in the IMI C&IB Division that represent around 80% of the Group's total exposure). The sensitivity was determined based on the assumptions adopted for the alternative scenarios (best-case and worst-case) used to determine the forward-looking conditioning, weighted at 100%, rather than the most-likely scenario, and maintaining the effects of the management overlays described above. A summary is provided below of the quantitative impacts of the sensitivity analyses conducted on the ECL, as at 30 June 2022, according to the methodology described above and based on the scenarios determined internally by the Research Department. The portfolio sensitivity would entail an increase of 124 million euro in ECL under the worst-case scenario, in addition to the Add On already applied at the closing as at 30 June 2022. The best-case scenario would generate a decrease of 88 million euro, which would be added to the removal of the Add On. In terms of effects on Stage 2, 4.6 billion euro in exposures would slide into Stage 2 with the worst-case scenario, and 0.6 billion euro in exposures would return to Stage 1 in the best-case scenario, estimated in relation to the exposures classified in Stage 2 at the closing as at 30 June 2022.

Counterparty risk

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

The Group uses techniques to mitigate counterparty risk through bilateral netting arrangements which enable the netting off of credit and debit positions in the event of counterparty default. This is achieved by entering into ISDA (International Swaps and Derivatives Association) agreements, for OTC derivatives, which also reduce the absorption of regulatory capital in accordance with supervisory provisions. In addition, the Bank establishes margining arrangements, where possible, typically with daily frequency, to hedge bilateral OTC derivatives (CSAs or Credit Support Annexes) and SFTs (GMRAs or Global Master Repurchase Agreements and GMSLAs or General Market Securities Lending Agreements).

For reporting purposes, Intesa Sanpaolo has been authorised to use the internal models approach to calculate the counterparty risk requirement for OTC and ETD derivatives and SFTs.
Those advanced risk measurement methods are also used at operational level to perform the "use test": the IMI C&IB Risk Management Head Office Department calculates, validates and sends the metrics to the credit monitoring systems on a daily basis to measure the use of the credit lines for derivatives and SFTs. The Group's other banks, which have operations that involve a residual counterparty risk requirement with respect to the Parent Company, apply the advanced metrics in a simplified manner at operational level.

To perform the use test of the model, the Group has implemented the processes required by the "Basel 3" regulations. In particular, stress tests are carried out to measure the impacts on risk measures under extreme market conditions. Backtesting is also conducted to ensure the robustness of the model.
In addition, to complete the risk analysis process, the following corporate processes have been activated:

- definition and periodic calculation of stress tests on market scenarios and joint market/credit scenarios on counterparty risk measures;
- definition and periodic analysis of Wrong-Way Risk, i.e. the risk of a positive correlation between the future exposure to a counterparty and that counterparty's probability of default;
- definition and monitoring of management limits;
- contribution of collateral inflow/outflow risk measures, calculated on the basis of the internal counterparty risk model, for margined OTC derivatives and SFTs;
- periodic reporting to the management of measures calculated using the internal exposure model, capital requirement, level of use of management limits, results of stress tests and analyses of wrong-way risk;
- definition and periodic calculation of back-testing analyses to monitor the predictive performance over time of the model with respect to the movements of the risk factors underlying the transactions in the portfolio.

Compared to 31 December 2021, also in relation to specific discussions with the ECB, the following changes were made to the model:

- alignment with art. 162 (par. 2(d)) CRR in determining the maturity used in calculating the requirement for exposures deriving from SFTs, relating to the scope of the internal model;
- removal of eligibility criteria linked to the liquidity and credit rating for securities underlying SFTs, not binding for positions handled in the area of Counterparty Credit Risk pursuant to art. 271 (par. 2) CRR;
- calibration of the expected value of the distributions for exchange rates with the Euro, so that they match the forward prices of those rates.

Impacts from the COVID-19 pandemic

With regard to counterparty risk, during the first half of 2022, there were no changes in the risk metrics attributable to the context resulting from the COVID-19 pandemic. Reference is made to the description provided in the Financial Statements as at 31 December 2021.

Impacts of the Russia-Ukraine conflict

The exposure in OTC derivatives to Russian counterparties or subsidiaries of Russian entities, already very low in March 2022, was further decreased during the second quarter, due to cash flows or deals that were completed or deals that were unwound. In this period, despite the operational difficulties triggered by the sanctions imposed on Russian counterparties, and the related countermeasures adopted by the Russian Central Bank, no missed payments relating to contracts were recorded. During the same period, market volatility also attenuated, resulting in lower fluctuations in MtM than in the initial phase of the Russia-Ukraine crisis. The margin process did not record delays or non-payments.

MARKET RISKS

TRADING BOOK

The risks associated with trading activity, i.e. market risks deriving from the effect that changes in market variables may generate on the Group's various assets and liabilities, are generally quantified through daily and periodic analysis designed to determine the vulnerability of the Intesa Sanpaolo Group’s trading book. A list of the main risk factors to which the Group’s trading book is exposed is set out below:
- 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.

For some of the risk factors cited above and included in the managerial VaR measurements, the Supervisory Authority has validated the internal models for the reporting of the capital requirement of Intesa Sanpaolo. More specifically, concerning market risk, the risk profiles validated are: (i) generic/specific on debt securities and on equities; (ii) position risk on quotas of UCI underlying CPPI (Constant Proportion Portfolio Insurance) products and the hedge fund portfolios with a look through approach; (iii) position risk on dividend derivatives and (iv) commodity risk.

Managerial VaR

Definition: Value at Risk is a monetary estimate of risk based on statistical techniques capable of summarising the maximum probable loss, with a certain confidence level, that a financial position or portfolio may suffer in a given period (holding period) in response to changes in the risk factors underlying the measurement models caused by market dynamics.
Method: the mathematical and statistical models that make it possible to calculate VaR can be divided into two general categories: parametric approaches (variance/covariance) and approaches based on simulation techniques, such as that in use at Intesa Sanpaolo.
Specifically, the approach used in Intesa Sanpaolo has the following characteristics:
- historical simulation model based on the mark-to-future platform;
- a 99th percentile confidence interval;
- disposal period of 1 day;
- full revaluation of existing positions.

Historical simulation scenarios are calculated internally on time series of one-year risk factors (250 observations). For management purposes, a non-equal probability of occurrence is associated with each scenario, decreasing exponentially as a function of time, to privilege the informational content of the most recent data. For regulatory purposes, scenarios are equally weighted when calculating the capital requirement.
Please note that, as part of the ordinary annual update of the market risk managerial framework set out by the Group Risk Appetite Framework, in line with the 2021 framework, the Board of Directors set a specific limit for trading within an overall limit for trading and the hold to collect and sell (HTCS) business model.

Sensitivity and greeks

Definition: sensitivity measures the risk attributable to a change in the theoretical value of a financial position to changes of a defined quantity of risk factors connected thereto. It therefore summarises:
- the extent and direction of the change in the form of multipliers or monetary changes in theoretical value;
- without explicit assumptions on the time horizon;
- without explicit assumptions of correlation between risk factors.

Method: the sensitivity indicator can be constructed using the following techniques:
- calculation of prime and second derivatives of the valuation formulae;
- calculation of the difference between the initial value and that resulting from the application of unidirectional shocks independent of risk factors (delta, gamma, vega, CR01 and PV01).

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

Level measures
Definition: level measures, used also as ratios, are indicators supporting synthetic risk metrics which are based on the assumption of a direct relationship between the size of a financial position and the risk profile. In particular, level measures make it possible to monitor the nature of exposures to certain issuers and economic groups.
The main level measure indicators are nominal (or equivalent) position and average duration metrics; level indicators also include the Negative Maximum Exposure of the Valuation Reserve measures characteristic of the HTCS business model.
Method: nominal (or equivalent) position is determined by identifying:
- the notional amount;
- the mark to market;
- the conversion of the position of one or more instruments to that of a given benchmark (equivalent position);
- the FX exposure.

When determining the equivalent position, risk is defined as the value of the various assets, converted into an aggregate position that is "equivalent" in terms of sensitivity to the change in the risk factors investigated.
At Intesa Sanpaolo the approach is characterised by extended use of ceilings in terms of MtM, as representative of the value of the assets as recognised.

Stress tests
Definition: stress tests are conducted periodically to identify and monitor potential vulnerabilities in trading books upon the occurrence of extreme, rare events not fully captured by VaR models.
Method: stress tests for management purposes are applied periodically to market risk exposures, typically adopting:
- sensitivity analysis, which measures the potential impact on the main risk metrics of a change in a single risk factor or simple multi-risk factors;
- scenario analysis, which measures the potential impact on the main risk metrics of a certain scenario that considers multiple risk factors.

The following stress exercises are included in the Group's Stress Testing Programme:
- multi-risk exercise, based on scenario analysis, which enables the forward-looking assessment of the simultaneous impact on the Group of multiple risk factors, also taking into account the interrelationships between them and, where applicable, the top management's reaction capacity;
- regulatory multi-risk exercise, ordered and coordinated by the supervisor/regulator which defines its general assumptions and scenarios, requires the full revaluation of the impacts with the resulting need of contributions from the specialist departments of the Chief Risk Officer and Chief Financial Officer Governance Areas;
- situational exercise, ordered by the top management or by the supervisor/regulator in order to assess the impact of particular events (relating to the geopolitical, financial, economic, competitive environment, etc.) from a forward-looking perspective;
- a single or specific risk exercise to assess the impact of scenarios (or single or more specific risk factors) on specific risk areas.

Stressed VaR
Definition: the stressed VaR metric is based on the same measurement techniques as VaR. In contrast to the latter, it is calculated by applying market stress conditions recorded over an uninterrupted 12-month historical period.
Method: 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 portfolio of Intesa Sanpaolo;
- the period must allow real time series to be used for all portfolio risk factors.

While using the historical simulation approach for VaR calculation, the latter point is a discriminating condition in the selection of the holding period. Actually, in order to ensure that the scenario adopted is effectively consistent and to avoid the use of driver or comparable factors, the historical period must ensure the effective availability of market data.
As at the date of preparation of the Half-yearly Report as at 30 June 2022, the period for the measurement of Stressed VaR for Intesa Sanpaolo was from 3 October 2011 to 20 September 2012.
For managerial purposes, the stressed VaR metric is calculated on the entire set of the Group's portfolios measured at fair value (trading and FVOCI in the banking scope) and the stressed period is revised at least annually, together with the annual update to the Risk Appetite Framework.

Incremental Risk Charge (IRC)
Definition: The Incremental Risk Charge (IRC) is the maximum potential loss in the credit trading book resulting from an upgrade/downgrade or bankruptcy of the issuers, over a 1-year period, with a 99.9% confidence level. This measure is additional to VaR and enables the correct representation of the specific risk on debt securities and credit derivatives because, in addition to idiosyncratic risk, it also captures event and default risk.
This measure applies to all financial products that are sensitive to credit spreads included in the trading book except for the securitisations.
Method: the simulation is based on a Modified Merton Model. The probabilities of transition and default are those observed through the historical matrices of the main rating agencies, applying a probability of default minimum value higher than zero. The asset correlation is inferred from the equity correlation of the issuers. The model is based on the assumption of a constant position with a holding period of one year.
A regular stress program is applied to the model's main parameters (correlation, and transition, default and credit spread matrices).

Daily managerial VaR of the trading book

Below is a summary of the daily managerial VaR for the trading book only, which also shows the overall exposure of the main risk taking centres.

(millions of euro)

	2022				2021			
	average 2nd quarter	minimum 2nd quarter	maximum 2nd quarter	average 1st quarter	average 4th quarter	average 3rd quarter	average 2nd quarter	average 1st quarter
Total GroupTrading Book (a)	22.8	17.7	29.6	21.4	19.9	20.4	25.8	41.3
of which: Group Treasury and Finance Department	*6.1*	*4.6*	*7.1*	*3.8*	*2.7*	*2.6*	*2.8*	*3.2*
of which: IMI C&IB Division	*21.2*	*15.5*	*28.9*	*17.5*	*19.1*	*20.5*	*25.9*	*38.1*

Each line in the table estimates the daily average VaR calculated on the historical quarterly time-series of the Intesa Sanpaolo Group (including other subsidiaries), the Group Treasury and Finance Department and the IMI C&IB Division respectively; minimum and maximum values for the overall perimeter are estimated using aggregate historical time-series and therefore do not correspond to the sum of the individual values in the column.

(a) The Group Trading Book figure includes the managerial VaR of the Group Treasury and Finance Department, the IMI C&IB Division (Trading Book perimeter) and the other subsidiaries.

During the second quarter of 2022, as shown in table above, there was a substantial stability in the overall trading risks compared to the averages for the first quarter of 2022 (22.8 million euro in the second quarter of 2022 and 21.4 million euro in the first quarter of 2022) and, more generally, a reduction compared to the averages of the first and second quarters of 2021. These reductions are mainly attributable to the scenario “rolling effect” due to the lower market volatility following the exceptional market shocks related to the spread of the COVID-19 pandemic.
The effect described above, i.e. the reduction due to the scenario rolling effect, was sharper if the first half of 2022 is compared with the first half of 2021 (22.1 million euro in the first half of 2022 compared with 33.5 million euro in the first half of 2021).

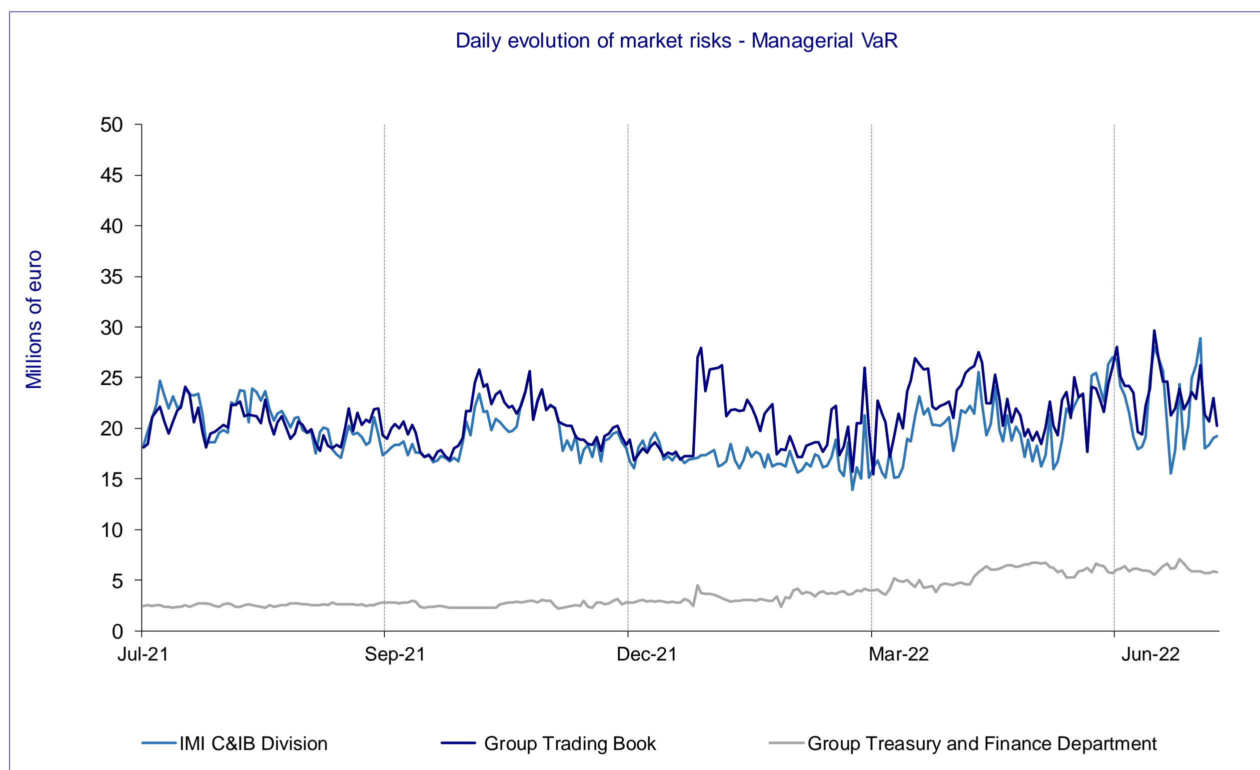
(millions of euro)

	2022			2021		
	average 1st half	minimum 1st half	maximum 1st half	average 1st half	minimum 1st half	maximum 1st half
Total GroupTrading Book (a)	22.1	15.4	29.6	33.5	18.8	57.8
of which: Group Treasury and Finance Department	*5.0*	*2.4*	*7.1*	*3.0*	*2.3*	*5.6*
of which: IMI C&IB Division	*19.4*	*13.9*	*28.9*	*32.0*	*18.9*	*51.9*

Each line in the table estimates the daily average VaR calculated on the historical time-series of the first six months of the Intesa Sanpaolo Group (including other subsidiaries), the year respectively of the Group Treasury and Finance Department and the IMI C&IB Division; minimum and maximum values for the overall perimeter are estimated using aggregate historical time-series and therefore do not correspond to the sum of the individual values in the column.

(a) The Group Trading Book figure includes the managerial VaR of the Group Treasury and Finance Department, the IMI C&IB Division (Trading Book perimeter) and the other subsidiaries.

With regard to the trend in the trading VaR during the second quarter of 2022, the change was mainly due to the IMI C&IB Division. In greater detail, against substantial stability of the figure for the end of the half year compared to the figure at the end of the first quarter 2022, in the second quarter there was significant variability mostly due to the management of the DVA risk, both through credit indices and Italy risk. The movements are shown in the chart below:



The breakdown of the Group's risk profile in the trading book in the second quarter of 2022 confirmed the prevalence of credit spread risk and interest rate risk, accounting for 39% and 23%, respectively, of the total managerial VaR. Instead, the single risk-taking centres show a prevalence of exchange rate risk and interest rate risk for the Group Treasury and Finance Department (57% and 34%, respectively) and of credit spread and interest rate risk for the IMI C&IB Division (44% and 23%, respectively).

Contribution of risk factors to total managerial VaR[(a)]

2nd quarter 2022	Shares	Interest rates	Credit spreads	Foreign exchange rates	Other parameters	Commodities
Group Treasury and Finance Department	3%	34%	6%	57%	0%	0%
IMI C&IB Division	12%	23%	44%	4%	11%	6%
Total	**10%**	**23%**	**39%**	**13%**	**9%**	**6%**

(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 2022, broken down between the Group Treasury and Finance Department and IMI C&IB Division and indicating the distribution of the Group's overall capital at risk.

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

(millions of euro)

	EQUITY		INTEREST RATES		CREDIT SPREADS		FOREIGN EXCHANGE RATES		COMMODITIES	
	Crash	Bullish	+40bps	lower rate	-25bp	+25bp	-5%	+5%	Crash	Bullish
Total Trading Book	72	44	4	-7	-13	12	40	4	-21	-7

Specifically:
- for stock market positions, there would not be potential losses either in the case of sudden increases in stock prices or in the case of sharp decreases therein;
- for positions in interest rates, there would be potential losses of 7 million euro in the event of a fall in interest rates;
- for positions in credit spreads, there would be potential losses of 13 million euro in the case of tightening of credit spreads by 25 bps;
- for positions in exchange rates, there would be no potential losses either in the event of appreciation and depreciation of the Euro against the other currencies;
- lastly, for positions in commodities, there would be losses both in the event of a fall or a rise in prices of commodities other than precious metals.

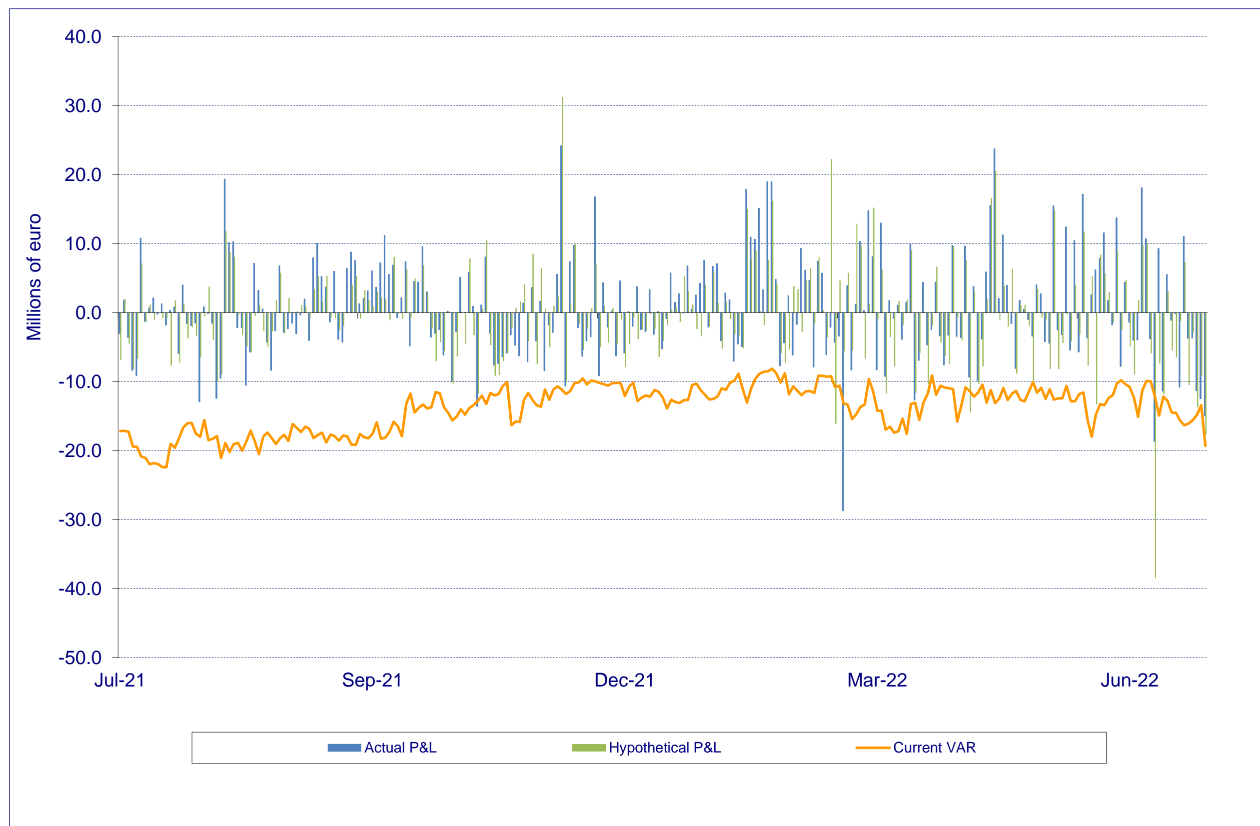
With regard to the use of the overall limit relating to trading and the hold to collect and sell (HTCS) business model, there was an increase in market managerial VaR in the second quarter from 196 million euro (average managerial VaR first quarter of 2022) to 212 million euro (average managerial VaR second quarter of 2022). The increase in average managerial VaR is mainly attributable to the entry of new volatility scenarios at the tail of the distribution as a result of the evolution of the financial variables during the second quarter of 2022, primarily influenced by the expectations on the actions to reduce monetary stimulus by the main central banks.

Backtesting

The soundness of the VaR calculation methods must be monitored daily via backtesting which, for the regulatory backtesting, compares:
- the daily estimates of value at risk;
- the daily profits/losses based on backtesting which are determined using actual daily profits and losses achieved by individual desks, net of components which are not considered in backtesting: these include, for example, fees and financial costs of managing the positions that are regularly reported within the managerial area.

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

During the last year three backtesting exceptions are registered for the Intesa Sanpaolo Group's regulatory VaR measure [39]. The breaches were not due to portfolio movements but to peaks of volatility in the interest rate and credit risk factors.



[39] In the last 250 observations, the Bank recorded three Actual P&L exceptions and three Hypothetical P&L exceptions. For the total calculation, as per the reference regulations, the maximum between Actual P&L and Hypothetical P&L exceptions is counted. Accordingly, there were three backtesting exceptions in the last year.

Impacts from the COVID-19 pandemic
With regard to operating and regulatory market risks, during the first half of 2022, there were no changes in the risk metrics attributable to the context resulting from the COVID-19 pandemic. Reference is made to the description provided in the specific section of the Financial Statements as at 31 December 2021.

Impacts of the Russia-Ukraine conflict
There were no significant impacts of the Russia-Ukraine conflict on the metrics for measuring market risk in the Group's trading book.

BANKING BOOK

Qualitative information

The "banking book" is defined as the trade portfolio consisting of all on-balance sheet and off-balance sheet items that are part of the Intesa Sanpaolo Group's lending and deposit collecting activities; therefore, the interest rate risk of the banking book (hereinafter "interest rate risk" or IRRBB) refers to the current and prospective risk of changes in the Group's banking book due to adverse changes in interest rates, which are reflected in both economic value and net interest income.
The banking book also includes exposure to market risks deriving from the equity investments in listed companies not fully consolidated, mainly held by the Parent Company.
The internal system for measuring interest rate risk assesses and describes the effect of changes in interest rates on the economic value and the net interest income and identifies all significant sources of risk that affect the banking book:
- repricing risk, i.e. the risk associated with lags in maturity dates (for fixed-rate positions) or in the interest rate revision date (for floating-rate positions) of the assets, liabilities and off-balance sheet items;
- yield curve risk, i.e. the risk associated with changes in the inclination and shape of the yield curve;
- basis risk, i.e. the risk arising from imperfect correlation in the adjustment of lending and deposit rates on different instruments, but with otherwise similar repricing characteristics. As interest rates change, these differences can lead to unexpected changes in cash flows and yield spreads between assets, liabilities and off-balance sheet positions having similar maturities or rate revision frequencies;
- optionality risk, i.e. the risk associated with the presence of automatic or behavioural options in the Group's assets, liabilities and off-balance sheet instruments.

Intesa Sanpaolo's current measurement system also allows the risk profile to be examined on the basis of two distinct but complementary perspectives:
- **economic value perspective** (EVE – Economic Value of Equity), which considers the impact of interest rate fluctuations and the associated volatility on the present value of all future cash flows;
- **net interest income perspective** (NII - Net Interest Income), which aims to analyse the impact of interest rate fluctuations and their associated volatility on net interest income;

The economic value perspective assesses the medium-to-long term impacts of interest rate fluctuations, while the net interest income perspective provides a short-term assessment.
Interest rate risk is managed by setting limits to both perspectives. Said limits comprise:
- consolidated limits, which are defined in the RAF and approved by the Board of Directors, both in terms of change in EVE (shift sensitivity or ΔEVE) and net interest income sensitivity (ΔNII). The consolidated ΔEVE limits reflect, consistent with the context and regulatory instructions, the average expected exposure of the Group's EVE. The expected average level is quantified within the RAF and defined as the average exposure that the Group expects to take during the year. The Group's consolidated shift sensitivity limits are accompanied by a risk indicator, which constitutes an "early warning" threshold approved within the RAF, which makes it possible to control exposure to the risk of yield curve twists;
- individual shift sensitivity and net interest income sensitivity limits, which are part of the "cascading" process of the Group's RAF limit, and are proposed, after being shared with the operating structures, by the Market and Financial Risks Management Head Office Department and approved by the Group Financial Risk Committee (GFRC). These limits take account of the characteristics of the banks'/divisions' portfolios, with particular reference to intermediated volumes, average durations, the type of instruments traded and the Company's strategic mission within the Group.

The Market and Financial Risks Management Head Office Department performs monthly checks that the limits and early warning level approved in the Risk Appetite Framework (RAF) are observed at the consolidated and individual level. In addition, the Group has adopted a specific internal policy document regarding interest rate risk (the IRRBB Guidelines) subject to approval by the Board of Directors, which governs the Group's entire interest rate risk management framework and in particular the aspects of governance, methods of use and formulation of scenarios.
The IRRBB Guidelines define the methods for measuring the financial risks generated by the Group's banking book:
1. Sensitivity of economic value (ΔEVE);
2. Net interest income sensitivity (ΔNII);
3. Credit Spread Risk of the Banking Book (CSRBB);
4. Value at Risk (VaR).

These measures are available for each relevant currency in the banking book.

The **shift sensitivity of the economic value** (or fair value shift sensitivity) measures the change in the economic value of the banking book and is calculated at individual cash flow level for each financial instrument, based on different instantaneous rate shocks and based on historical stress simulations aimed at identifying the worst and best cases. It reflects the changes in the present value of the cash flows of the positions already in the balance sheet for the entire remaining duration until maturity (run-off balance sheet). The cash flows used to determine the present value are developed at the contractual rate, FTP (internal fund transfer price) or risk-free rate (Euribor/Libor) and discounted according to risk-free discount curves. When calculating the present value of loans, the expected loss component is considered; it represents the amount of cash flow that the Bank does not expect to recover on a given exposure and that thus reduces its value. The present value of the loan adjusted for credit risk is calculated for this purpose by deducting the corresponding level of expected loss from expected cash flows according to the "cash flow adjustment" ("CFA") method.
To control the exposure and monitor the limits, the calculation involves determining the algebraic sum of the equivalent in euro of the shift sensitivities of the positions in the various currencies by applying a parallel shock of +100 bps to the interest rate curves in the various currencies. The calculation for non-parallel shocks for the purposes of controlling the exposure and monitoring the early warning level is performed similarly. The sensitivity of the relevant currencies is then corrected, according to a "currency aggregation" management technique, to take account of the imperfect correlation with the rates of the main currency (the euro).

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 the impact is assessed on a going concern basis. The change in net interest income is estimated under expected scenarios as well as under potential interest rate shocks and stress scenarios. Further assumptions are made regarding customer behaviour (differentiated according to interest rate scenarios) and market behaviour and the response of Group/Bank management to changes in the economy. Thus, the projection of the net interest income and its sensitivity to changes in market factors require a series of modelling assumptions for the development of volumes and rates (fixed/floating), the reference time horizon, the relevant currencies, as well as the behavioural models introduced (prepayment, core deposits, etc.) and the assumptions regarding the evolution of the portfolio (run-off, constant or dynamic balance sheet).
The net interest income sensitivity limits are defined on the basis of an instantaneous and parallel interest rate shock of +/-50 bp, with a reference time horizon of 1 year and assuming a constant balance sheet. The net interest income sensitivity limit is defined as the limit on the loss in the income statement and, therefore, is exclusively negative (limit on the potential reduction in the net interest income): the use of the limit is represented by the sensitivity that generates a greater reduction in net interest income in the two scenarios of a parallel rise and fall in interest rates. The total sensitivity exposure of net interest income is given by the algebraic sum of the exposure of individual currencies.
The GFRC is also tasked with allocating sub-limits on net interest income sensitivity to the individual Banks/Companies, and may also define sub-limits on net interest income sensitivity by currency. The limit assigned to each Company is defined on the basis of the historical volatility observed in individual net interest income, consistent with the strategies and limits defined for shift sensitivity.

The **Credit Spread Risk of the Banking Book** (**CSRBB**) is defined as the risk caused by changes in the price of credit risk, liquidity premium and potentially other components of instruments with credit risk that cause fluctuations in the price of credit risk, liquidity premium and other potential components, which is not explained by the interest rate risk of the banking book or by the expected credit risk/jump-to-default risk. In line with the EBA Guidelines, which limit the reference area to assets only (i.e. excluding derivatives and liabilities), specific monitoring is envisaged for the HTCS securities portfolio, whose changes in value have an immediate impact on the Group's capital.

Value at Risk (VaR) is a probability-based metric that expresses the maximum potential loss of portfolio value that could be incurred within a specific time horizon, at a pre-defined confidence level. VaR is also used to consolidate exposure to financial risks of the various Group companies which perform banking book activities, also taking into account the benefits of diversification and the correlation between various risk factors and different currencies. This measure is calculated and monitored, for the entire scope, by the Market and Financial Risks Management Head Office Department;

In calculating the above risk measures, Intesa Sanpaolo adopts behavioural models for representing capital items.
For mortgages, statistical techniques are used to determine the probability of prepayment, in order to reduce the Group's exposure to interest rate risk (overhedging) and to liquidity risk (overfunding). The method developed estimates prepayment coefficients diversified according to the type of customer, financial characteristics of the transaction, such as the loan rate type (fixed or floating), the original term of the loan and the seasoning, understood as the age of the loan on the date of the prepayment event. The analysis refers to partial repayments, full repayments and refinancing. The prepayment model also examines the reasons that lead customers to make prepayments. With regard to this aspect, the phenomenon may be divided into a structural component ("Core Prepayment") and a scenario component ("Coupon Incentive"), primarily linked to market variations. Prepayment phenomena are monitored monthly and the prepayment coefficients to be applied to the model are re-estimated at least annually and are subject to periodic backtesting, appropriately documented in the specific model change document to ensure that the operating situation adheres to the assumptions made and incorporate any legislative and/or behavioural changes.
For core deposits (customer current accounts), a financial representation model is adopted aimed at reflecting the behavioural features of stability of deposits and partial and delayed reaction to market interest rate fluctuations. The model is continuously monitored and periodically revised to promptly reflect changes in volumes and customer characteristics over time, as well as in the relevant regulatory framework.
In order to measure the Group's vulnerability to market turbulence, the interest rate risk measurement system measures the impacts on the bank's economic value and net interest income produced by strains on the market (“scenario analysis”), i.e.

sudden changes in the general level of interest rates, changes in the relationships between fundamental market rates (basis risk), in the slope and shape of the yield curve (yield curve risk), in the liquidity of the main financial markets or in the volatility of market rates.
These analyses are conducted by subjecting the portfolio to various interest rate change scenarios:
– regulatory scenarios produced by the Supervisory Outlier Test (SOT), which introduces an "early warning" of 15% of Tier 1, calculated with reference to the BCBS scenarios (Parallel shock up, Parallel shock down, Steepener shock, Flattener shock, Short rates shock up and Short rates shock down);
– shocks diversified by reference curve of the main risk factors and calculated as the difference between the yields of the curves of the individual factors and those of a curve relating to the selected pivot parameter (basis risk);
– stress scenarios in historical simulation.

Stress tests on behavioural models are also carried out to verify the financial impact of alternative assumptions underlying the behavioural parameters estimated in the models. The methodological assumptions underlying the assumptions contained in the stress scenarios are duly described in the detailed methodologies.

Impacts from the COVID-19 pandemic
In the first half of 2022, the strategies and safeguards implemented in the framework of interest rate risk management were put into place to protect net interest income against potential additional negative impacts of COVID-19. Net interest income was stabilised through measures to cover the viscousness of customer demand deposits by entering into hedging derivatives and natural hedges with mortgage loans to customers.

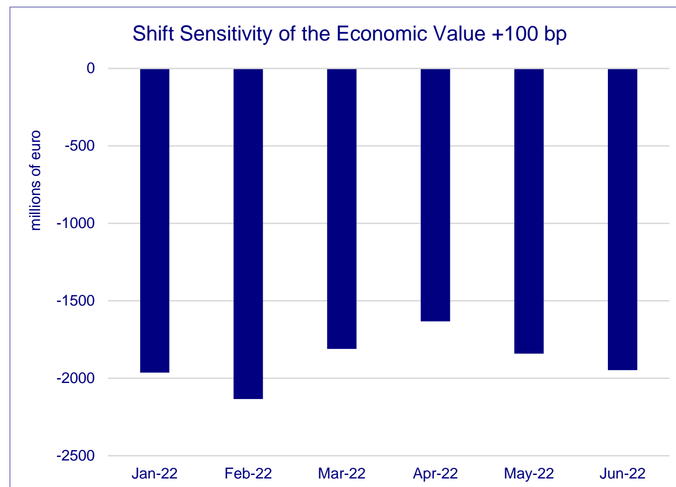
Impacts of the Russia-Ukraine conflict
The Russia-Ukraine conflict resulted in a generalised increase in the spread against the German Bund and, as a result, an increase in the related returns. With regard to the interest rate risk generated by the Intesa Sanpaolo Group's banking book, this increase resulted in a reduction in exposure of the government bond portfolio.

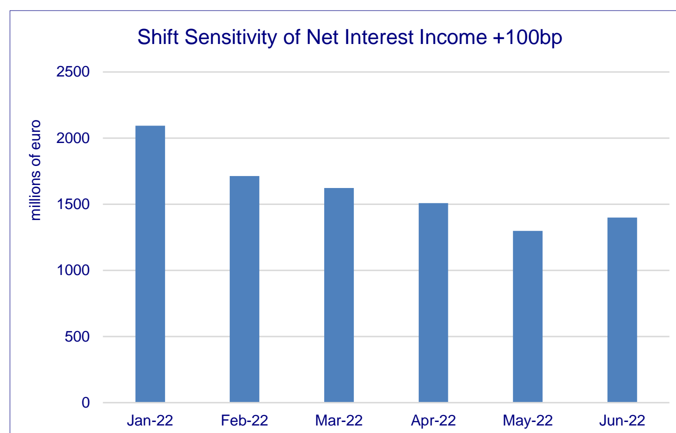
Quantitative information

In 2022, interest rate risk generated by the Intesa Sanpaolo Group's banking book, measured through shift sensitivity of value, averaged -1,889 million euro, with a maximum of -2,134 million euro and a minimum value of -1,633 million euro, reaching a figure of -1,948 million euro at the end of June 2022. The latter figure increased by 192 million euro on the end of 2021, when it came to -1,756 million euro. That change was mainly due to the increase in the model hedging of core deposits, carried out both through derivatives and through natural hedges represented by disbursements of fixed-rate loans to customers. This was partially offset by a decrease in exposure of the government bond portfolio.
The sensitivity of net interest income – assuming a +50, -50 and +100 basis point change in interest rates – amounted to 880 million euro, -784 million euro and 1,399 million euro, respectively, at the end of June 2022.
The following table and charts provide a representation of the performance of the shift sensitivity of economic value (or the shift sensitivity of fair value) and the shift sensitivity of net interest income.

(millions of euro)

	1st half 2022			30.06.2022	31.12.2021
	average	minimum	maximum		
Shift Sensitivity of the Economic Value +100 bp	-1,889	-1,633	-2,134	-1,948	-1,756
Shift Sensitivity of Net Interest Income -50bp	-814	-768	-875	-784	-880
Shift Sensitivity of Net Interest Income +50bp	932	746	1,105	880	962
Shift Sensitivity of Net Interest Income +100bp	1,606	1,622	2,094	1,399	1,847





Interest rate risk, measured in terms of VaR, averaged 612 million euro in 2022, with a maximum value of 885 million euro and a minimum value of 547 million euro, reaching a figure of 885 million euro at the end of June 2022. The latter figure rose by 376 million euro compared to 509 million euro at the end of 2021. That change is largely due to the increase in interest rates recorded especially in the second quarter.

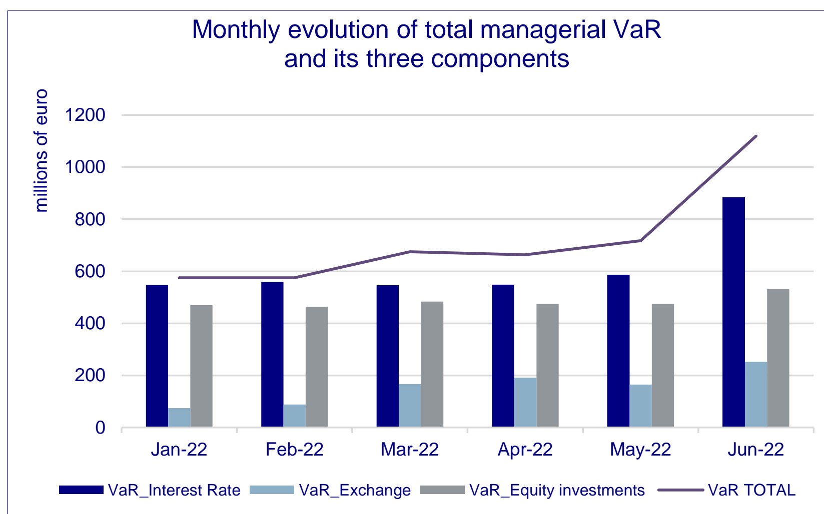
Foreign exchange risk, expressed by equity investments in foreign currency (banking book) and measured in terms of VaR, averaged 156 million euro in 2022, with a minimum value of 74 million euro and a maximum value of 252 million euro, with the latter coinciding with the value at the end of June 2022 (93 million euro at the end of 2021). The figure at the end of June 2022 was up by 159 million euro on the figure at the end of 2021. That change was largely due to the sharp volatility of the Russian rouble as a result of the Russia-Ukraine conflict.

Price risk generated by the equity portfolio, measured in terms of VaR, recorded an average level during 2022 of 483 million euro, with minimum and maximum values of 463 million euro and 532 million euro, respectively, the latter being the figure of the end of June 2022, up by 165 million euro on the value at the end of December 2021 of 367 million euro. That change was largely due to the increase in market volatility, specifically recorded in the second quarter of 2022.

Total VaR, consisting of the three components described above (Interest Rate VaR, Exchange VaR and Equity VaR) averaged 721 million euro in 2022, with a maximum value of 1,119 million euro and a minimum value of 575 million euro, reaching a figure of 1,119 million euro at the end of June 2022, up by 571 million euro on the value at the end of December 2021 of 548 million euro. That change is attributable to the phenomena described above.
The table and chart below provide a representation of the performance of total VaR and its three components (Interest Rate VaR, Exchange VaR and Equity Investments VaR).

(millions of euro)

	1st half 2022			30.06.2022	31.12.2021
	average	minimum	maximum		
Value at Risk - Interest Rate	612	547	885	885	509
Value at Risk - Exchange	156	74	252	252	93
Value at Risk - Equity investments	483	463	532	532	367
Total Value at Risk	**721**	**575**	**1,119**	**1,119**	**548**



Lastly, the table below shows a sensitivity analysis of the banking book to price risk, measuring the impact on Shareholders' Equity of a price shock of ±10% for the portfolio of quoted minority stakes, largely classified to the HTCS category.

Price risk: impact on Shareholders' Equity

(millions of euro)

		Impact on shareholders' equity at 30.06.2022	Impact on shareholders' equity at 31.03.2022	Impact on shareholders' equity at 31.12.2021
Price shock	10%	146	166	177
Price shock	-10%	-146	-166	-177

LIQUIDITY RISK

Liquidity risk is defined as the risk that the Bank may not be able to meet its payment obligations due to the inability to obtain funds on the market (funding liquidity risk) or liquidate its assets (market liquidity risk).
Intesa Sanpaolo's internal control and management system for liquidity risk is implemented within the Group Risk Appetite Framework and in compliance with the tolerance thresholds for liquidity risk approved in the system, which establish that the Group must maintain an adequate liquidity position in order to cope with periods of strain, including prolonged periods, on the various funding supply markets, also by establishing adequate liquidity reserves consisting of marketable securities and refinancing at Central Banks. To this end, a balance needs to be maintained between incoming and outgoing funds, both in the short and medium-long term. This goal is implemented by the Group Liquidity Risk Management Guidelines approved by the Corporate Bodies of Intesa Sanpaolo, in implementation of the applicable regulatory provisions.
These Guidelines illustrate the tasks of the various company functions, the rules and the set of control and management processes aimed at ensuring prudent monitoring of liquidity risk, thereby preventing the emergence of crisis situations. To this end, they include procedures for identifying risk factors, measuring risk exposure and verifying observance of limits, as well as the rules for conducting stress tests, identifying appropriate risk mitigation initiatives, drawing up emergency plans and submitting informational reports to company bodies.
In particular, a detailed definition is prepared of the tasks assigned to the corporate bodies 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.
In order to pursue an integrated, consistent risk management policy, strategic decisions regarding liquidity risk monitoring and management at the Group level fall to the Parent Company's Corporate Bodies. From this standpoint, the Parent Company performs its functions of monitoring and managing liquidity not only in reference to its own organisation, but also by assessing the Group's overall transactions and the liquidity risk to which it is exposed.
The corporate functions of the Parent Company responsible for ensuring the correct application of these Guidelines are the Group Treasury and Finance Head Office Department and the Planning and Control Head Office Department, responsible, within the Chief Financial Officer (CFO) Area, for liquidity management, and the Market and Financial Risk Management Head Office Control Department, which is directly responsible, within the Chief Risk Officer (CRO) Area, for measuring liquidity risk on a consolidated basis.
The Chief Audit Officer assesses the functioning of the overall structure of the control system monitoring the process for measuring, managing and controlling the Group's exposure to liquidity risk and verifies the adequacy and compliance of the process with the requirements established by the regulations. The results of the controls carried out are submitted to the Corporate Bodies, at least once a year.
The liquidity risk measurement metrics and mitigation tools are formalised by the Group Liquidity Risk Management Guidelines which establish the methodology used for both the short-term and structural liquidity indicators.
The short-term liquidity is aimed at providing an adequate, balanced level of cash inflows and outflows the timing of which is certain or estimated to fall within a period of 12 months, while ensuring a sufficient liquidity buffer, available for use as the main mitigation tool for liquidity risk. To that end, and in keeping with the liquidity risk appetite, the system of limits consists of specific short-term indicators, both of a regulatory nature with a holding a period of one month (Liquidity Coverage Ratio - LCR) and internally defined (Survival Period indicators).
The LCR indicator is aimed at strengthening the short-term liquidity risk profile, ensuring that sufficient unencumbered high-quality liquid assets (HQLA) are retained that can be converted easily and immediately into cash on the private markets to satisfy the short-term liquidity requirements (30 days) in an acute liquidity stress scenario. To this end, the Liquidity Coverage Ratio measures the ratio between: (i) the stock of HQLA and (ii) the total net cash outflows calculated according to the scenario parameters defined by Delegated Regulation (EU) 2015/61 and its supplements/amendments.
The Survival Period is an internal indicator designed to measure the first day on which the net liquidity position (calculated as the difference between available liquidity reserves and net outflows) becomes negative, i.e. when additional liquidity is no longer available to cover simulated net outflows. To this end, two different scenario hypotheses are considered, baseline and stressed, designed to measure, respectively: (i) the Group's independence from interbank funding on the financial markets and (ii) the survival period in the event of further tensions of a market and idiosyncratic nature, of medium-high severity, managed without envisaging restrictions on credit activity involving customers. For the Survival Period indicator, in stress conditions it is established that a minimum survival period must be maintained with the purpose of establishing an overall level of reserves covering greater cash outflows during a period of time that is adequate to implement the required operating measures to restore the Group to balanced conditions.
The aim of the Intesa Sanpaolo Group's structural Liquidity Policy is to adopt the structural requirement provided for by the regulatory provisions - 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. In addition, the internal policy on structural liquidity also includes early warning indicators for maturities of more than 1 year, with particular attention to long-term gaps (> 5 years).
The Group Liquidity Risk Management Guidelines also 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, also indicating the immediate lines of action, and the intervention measures for the resolution of emergencies. Within this framework, the Group Treasury and Finance Head Office Department was officially entrusted with drawing up the Contingency Funding Plan (CFP), which contains the various lines of actions that can be activated in order to face potential stress situations, specifying the extent of the mitigating effects attainable in the short-term.

The Group's liquidity position, which continues to be supported by suitable high-quality liquid assets (HQLA) and the significant contribution from retail stable funding, remained within the risk limits set out in the current Group Liquidity Policy for the entire first half of 2022. The levels of both regulatory indicators, LCR and NSFR, were above the regulatory requirements. The Liquidity Coverage Ratio (LCR) of the Intesa Sanpaolo Group, measured according to Delegated Regulation (EU) 2015/61, amounted to an average[40] of 191.7% (184.5% in December 2021). As at 30 June 2022, the exact value of unencumbered HQLA reserves totalled 172 billion euro (187 billion euro at the end of 2021), around 69% of which consisted of cash as a result of temporary excess liquidity payments in the form of unrestricted deposits held at central banks. Including the other marketable reserves and/or eligible Central Bank reserves, the Group's total unencumbered liquidity reserves amounted to 181 billion euro (192 billion euro in December 2021).
The NSFR was also significantly higher than 100%, supported by a solid base of stable deposits from customers, adequate wholesale medium/long-term securities funding and the TLTRO funding from the ECB. At 30 June 2022, the Group's NSFR, measured in accordance with regulatory instructions, was 127.5% (127.3% in December 2021). This indicator remains significantly higher than 100%, even excluding the positive contribution from TLTRO funding. Considering the high amounts of unencumbered liquidity reserves (liquid or eligible), also the stress tests, in a combined scenario of market and specific crises (with significant loss in customer deposits), yielded results in excess of the target threshold for the Intesa Sanpaolo Group, with a liquidity surplus capable of meeting extraordinary cash outflows for a period of more than 3 months.
Adequate and timely information regarding the development of market conditions and the position of the Bank and/or Group was regularly provided to the corporate bodies and internal committees in order to ensure full awareness and manageability of the various risk factors.

Impacts from the COVID-19 pandemic

Also during the first half of 2022, all the necessary preventive management and control measures implemented from the outset of the COVID-19 emergency remain in place to detect any signs of potential exacerbation of liquidity conditions.

Impacts of the Russia-Ukraine conflict

In light of the low exposure to Russian and Ukrainian counterparties, there were no significant impacts on the Group's consolidated liquidity position deriving from the Russia-Ukraine conflict.

[40] The figure shown refers to the simple average of the last 12 months of monthly observations, as per Regulation (EU) 2021/637.

INFORMATION ON FINANCIAL PRODUCTS

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

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

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

Fair value of financial instruments

The Intesa Sanpaolo Group governs and defines the fair value measurement of financial instruments through the “Group Guidelines / Rules for Valuation of Financial Instruments at Fair Value”, prepared by the Market and Financial Risk Management Head Office Department and applied by the Parent Company and all consolidated subsidiaries, including the Insurance Companies.
The “Rules for the Measurement of Unlisted Equity Investments”, drawn up by the Group M&A and Equity Investments Head Office Department, govern the fair value measurement of unlisted equities and financial instruments with unlisted equities as their underlying.
The methodologies for the fair value measurement of financial instruments, as well as any adjustments attributable to uncertainties in valuation, are governed by the Intesa Sanpaolo Group through the “Rules for Valuation of Financial Instruments at Fair Value” and are described in detail in the 2021 Annual Report, to which reference is made for more information.

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

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

If various inputs are used to measure the fair value of an asset or liability, classification in the hierarchy is determined on the basis of the lowest-level input used in measurement. When assigning a level in the fair value hierarchy, priority is given to the inputs of the valuation techniques rather than the valuation techniques themselves.
The attachment “Fair Value Hierarchy Rules” to the “Rules for Valuation of Financial Instruments at Fair Value” defines, with regard to the respective financial instrument valuation models/inputs, the basic rules that market inputs must comply with in order to be classified as Level 2, and the significance thresholds which, when overrun, result in the assignment of Level 3.

For level 1 financial instruments, the current bid price is used for financial assets and the current ask price for financial liabilities, struck on the principal active market at the end of the reference period.
For financial instruments with a scarcely significant bid-ask spread or for financial assets and liabilities with offsetting market risks, mid-market prices are used (again referred to the last day of the reference period) instead of the bid or ask price.
The following are considered level 1 financial instruments: contributed bonds (i.e. bonds for which the Composite Bloomberg Bond Trader is available from the Information Provider Bloomberg, or, alternatively, a price on the EuroMTS circuit, or at least three prices available from the Information Provider Bloomberg), contributed equities (i.e., quoted on the official market of reference), contributed harmonised funds (covered by EU directives), spot exchange rates, derivatives for which prices are available on an active market (for example, exchange traded futures and options) and hedge funds whose Net Asset Value (NAV) is available, according to the frequency established in the subscription contract, and in which assets classified as level 1 predominate among the assets invested in by the fund, as a percentage of the NAV, provided the level 3 instruments do not exceed a set threshold.
Conversely, all other financial instruments that do not belong to the above-described categories or that do not have the contribution level defined by the “Rules for Valuation of Financial Instruments at Fair Value” are not considered level 1 instruments.

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

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

estimates and assumptions made by the valuator are used (level 3 inputs).

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

- bonds without official quotations expressed by an active market and whose fair value is determined through the use of an appropriate credit spread which is estimated starting from contributed and liquid financial instruments with similar characteristics;
- loans whose fair value is determined through the use of an appropriate credit spread which is estimated starting from market data of financial instruments with similar characteristics;
- derivatives measured through specific models, fed by input parameters (such as yield, foreign exchange and volatility curves) observed on the market;
- structured credit products (including, among others, ABSs, HY CLOs, CDOs) for which significant prices are not available and whose fair value is measured using valuation techniques that consider parameters that can be gathered from the market;
- non-contributed equity instruments measured based on direct transactions, that is significant transactions on the stock registered in a time frame considered to be sufficiently short with respect to measurement date and in constant market conditions, or using the "relative" valuation models based on multipliers;
- hedge funds in which Level 2 assets predominate, as a percentage of the NAV, provided the Level 3 instruments do not exceed a set threshold.

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

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

The following are measured using this method:

- some transactions in derivatives, bonds, or complex structured credit instruments measured using level 3 inputs;
- hedge funds in which the level 3 assets are above a set limit;
- private equity funds and real estate funds valued at NAV, with possible discounts;
- shareholdings and other equities measured using models based on discounted cash flows or using equity methods;
- loans whose fair value is determined through the use of a credit spread that does not meet the criteria to be considered level 2;
- loans with underlying equity risk, whose fair value is calculated based on the discounting of expected contractual flows.

Independent price verification (IPV)

Independent Price Verification (IPV) is "a process by which market prices or marking to model inputs are regularly verified for accuracy and independence" (Article 4(1.70) Regulation (EU) 575/2013), carried out "in addition to daily marking to market or marking to model [...] by a person or unit independent from persons or units that benefit from the trading book" (Article 105(8) Regulation (EU) 575/2013).
The Intesa Sanpaolo Group has structured an IPV process with 3 levels of control in line with the provisions of Bank of Italy Circular 285/2013, incorporated into the Integrated Internal Control System, which requires the risk management processes to be incorporated in the processes and methods for valuing the company activities, also for accounting purposes.
The Intesa Sanpaolo Group governs and formalises its independent price verification process through the Group's "Guidelines/Rules for Independent Price Verification", which are described in detail in the 2021 Annual Report and to which reference is made for further information.

Prudent value of financial instruments

The framework of financial measurements is completed with the prudent valuation of financial instruments measured at fair value. In accordance with the provisions of Regulation (EU) 575/2013 (Capital Requirements Regulation – CRR), prudent valuation entails the calculation of specific additional valuation adjustments (AVAs) for the financial instruments measured at fair value, aimed at capturing different sources of valuation uncertainty and ensuring the achievement of a suitable level of certainty in the measurement of the positions. The total value of the AVAs is deducted from the Common Equity Tier 1 capital, without impacts on accounting fair values.
The Intesa Sanpaolo Group, in line with the criteria indicated in Delegated Regulation (EU) 2016/101, is subject to the application of the core approach for the determination of AVAs both at individual and at consolidated level for all the positions measured at fair value. The prudent value corresponds to the exit price from the position with a level of certainty equal to 90%. The Group governs and formalises the measurement of the prudent value of financial instruments through the Group's "Guidelines/Rules for Prudent Valuation of Financial Instruments at Fair Value", which are described in detail in the 2021 Annual Report and to which reference is made for further information.

Since 1 January 2021, when the transitional provisions under Commission Delegated Regulation (EU) 2020/866 ceased to apply, the Group has used the AVAs aggregation factor established by Commission Delegated Regulation (EU) 2016/101.

Fair value hierarchy

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

Excluding insurance companies

(millions of euro)

Assets / liabilities at fair value	30.06.2022			31.12.2021		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
1. Financial assets measured at fair value through profit or loss	18,704	30,780	3,647	24,262	25,080	3,389
a) Financial assets held for trading	16,858	30,101	206	22,615	24,379	187
of which: Equities	*900*	*-*	*21*	*67*	*-*	*17*
of which: quotas of UCI	*225*	*-*	*26*	*116*	*-*	*25*
b) Financial assets designated at fair value	-	1	-	-	1	3
c) Other financial assets mandatorily measured at fair value	1,846	678	3,441	1,647	700	3,199
of which: Equities	*136*	*48*	*287*	*161*	*116*	*225*
of which: quotas of UCI	*1,710*	*147*	*2,317*	*1,486*	*149*	*2,166*
2. Financial assets measured at fair value through other comprehensive income	52,146	7,797	420	59,084	8,004	492
of which: Equities	*1,246*	*538*	*380*	*1,537*	*1,314*	*421*
3. Hedging derivatives	-	8,012	-	-	1,732	-
4. Property and equipment	-	-	7,273	-	-	7,364
5. Intangible assets	-	-	-	-	-	-
Total	**70,850**	**46,589**	**11,340**	**83,346**	**34,816**	**11,245**
1. Financial liabilities held for trading	16,599	38,470	158	22,241	33,946	119
2. Financial liabilities designated at fair value	460	4,266	27	6	3,642	26
3. Hedging derivatives	-	3,933	-	-	4,868	-
Total	**17,059**	**46,669**	**185**	**22,247**	**42,456**	**145**

With regard to insurance companies, level 3 instruments, which allow for more discretion in fair value measurement, account for a limited portion of the portfolio, with an impact of 8.8% on total assets (8.7% as at 31 December 2021). The majority of level 3 financial assets is represented by quotas of UCIs, of which 309 million euro is represented by units of the Atlante Fund and the Italian Recovery Fund put in place as part of the regulations to support the banking system.
Over 55% of assets measured at fair value are determined based on market prices, and therefore without any discretion by the valuator.
Property and equipment measured at level 3 fair value includes real estate assets and valuable art assets, which represent 64% of the balance sheet assets at level 3 fair value.

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

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 2022:

- from level 1 to level 2:
  - financial assets held for trading for 117 million euro (book value as at 30 June 2022);
  - financial assets measured at fair value through other comprehensive income for 112 million euro (book value as at 30 June 2022);
  - financial liabilities held for trading for 8 million euro (book value as at 30 June 2022);
  - financial liabilities designated at fair value for 3 million euro (book value as at 30 June 2022);
- from level 2 to level 1:
  - financial assets held for trading for 34 million euro (book value as at 30 June 2022);
  - financial assets measured at fair value through other comprehensive income for 44 million euro (book value as at 30 June 2022);
  - financial liabilities held for trading for 160 million euro (book value as at 30 June 2022);
  - financial liabilities designated at fair value for 228 million euro (book value as at 30 June 2022).

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

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

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

Insurance companies

(millions of euro)

Assets / liabilities at fair value	30.06.2022			31.12.2021		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
1. Financial assets held for trading	317	142	501	344	293	390
of which: Equities	-	-	-	-	-	-
of which: quotas of UCI	*95*	-	*46*	*122*	-	*49*
2. Financial assets designated at fair value through profit or loss	88,139	23	496	100,515	143	401
of which: Equities	*2,897*	-	-	*3,510*	-	-
of which: quotas of UCI	*80,171*	-	-	*91,908*	*109*	-
3. Financial assets available for sale	81,307	5,130	4,529	93,910	6,305	4,208
of which: Equities	*1,894*	*7*	*56*	*2,202*	*7*	*54*
of which: quotas of UCI	*8,999*	-	*4,123*	*9,879*	-	*3,742*
4. Hedging derivatives	-	53	-	-	291	-
5. Property and equipment	-	-	7	-	-	8
6. Intangible assets	-	-	-	-	-	-
Total	**169,763**	**5,348**	**5,533**	**194,769**	**7,032**	**5,007**
1. Financial liabilities held for trading	21	42	-	-	42	61
2. Financial liabilities designated at fair value through profit or loss	-	74,328	-	-	84,667	-
3. Hedging derivatives	-	63	-	-	-	-
Total	**21**	**74,433**	**-**	**-**	**84,709**	**61**

With regard to insurance companies, level 3 instruments, which allow for more discretion in fair value measurement, account for a limited portion of the portfolio. They amount to 3% of Assets (2.4% as at 31 December 2021).
94% of financial assets measured at fair value in the insurance segment are determined based on market prices, and therefore without any discretion by the valuator.
Liabilities at fair value were almost entirely measured using level 2 inputs.

In addition to the transfers relating to financial assets and liabilities in the insurance segment designated at level 3 as detailed below, please note that the following transfers were made during the first half of 2022:

- from level 1 to level 2:
  - financial assets held for trading for 19 million euro (book value as at 30 June 2022);
  - financial assets measured at fair value through profit and loss for 11 million euro (book value as at 30 June 2022);
  - financial assets available for sale for 153 million euro (book value as at 30 June 2022);
- from level 2 to level 1:
  - financial assets measured at fair value through profit and loss for 5 million euro (book value as at 30 June 2022);
  - financial assets available for sale for 267 million euro (book value as at 30 June 2022).

The transfers between fair value levels are determined by the trends in the observability of prices or market data used to measure the instruments and by the materiality of the unobservable inputs.
The transition from level 1 to level 2 is a consequence of the disappearance of an active market for that instrument assessed by analysing the reliability and the reciprocal consistency of the available prices according to the provisions of the Group's Fair Value Policy. Conversely, securities for which a mark-to-model measurement is performed using inputs that can be observed on the market – classified, therefore, as level 2 – are transferred to level 1 when the existence of an active market is identified.

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

(millions of euro)

	Assets measured at fair value through profit or loss				Financial assets measured at fair value through other comprehensive income	Hedging derivatives	Property and equipment	Intangible assets
	TOTAL	*of which: a) Financial assets held for trading*	*of which: b) Financial assets designated at fair value*	*of which: c) Other financial assets mandatorily measured at fair value*				
1. Initial amount	**3,389**	**187**	**3**	**3,199**	**492**	**-**	**7,364**	**-**
2. Increases	**715**	**89**	**-**	**626**	**75**	**-**	**119**	**-**
2.1 Purchases	324	12	-	312	57	-	15	-
2.2 Gains recognised in:	120	7	-	113	17	-	-	-
2.2.1 Income statement	120	7	-	113	-	-	-	-
- of which capital gains	*114*	*6*	*-*	*108*	-	-	-	-
2.2.2 Shareholders' equity	-	X	X	X	17	-	-	-
2.3 Transfers from other levels	76	13	-	63	-	-	-	-
2.4 Other increases	195	57	-	138	1	-	104	-
3. Decreases	**-457**	**-70**	**-3**	**-384**	**-147**	**-**	**-210**	**-**
3.1 Sales	-132	-10	-3	-119	-47	-	-35	-
3.2 Reimbursements	-5	-	-	-5	-	-	-	-
3.3 Losses recognized in:	-75	-22	-	-53	-16	-	-21	-
3.3.1 Income statement	-75	-22	-	-53	-	-	-17	-
- of which capital losses	*-75*	*-22*	*-*	*-53*	-	-	-	-
3.3.2 Shareholders' equity	-	X	X	X	-16	-	-4	-
3.4 Transfers to other levels	-61	-33	-	-28	-61	-	-	-
3.5 Other decreases	-184	-5	-	-179	-23	-	-154	-
4. Final amount	**3,647**	**206**	**-**	**3,441**	**420**	**-**	**7,273**	**-**

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

(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	**390**	**401**	**4,208**	**-**	**8**	**-**
2. Increases	**225**	**185**	**711**	**-**	**-**	**-**
2.1 Purchases	59	-	447	-	-	-
2.2 Gains recognised in:	-	-	215	-	-	-
2.2.1 Income statement	-	-	-	-	-	-
- of which capital gains	-	-	-	-	-	-
2.2.2 Shareholders' equity	X	X	215	-	-	-
2.3 Transfers from other levels	128	-	48	-	-	-
2.4 Other increases	38	185	1	-	-	-
3. Decreases	**-114**	**-90**	**-390**	**-**	**-1**	**-**
3.1 Sales	-15	-	-243	-	-	-
3.2 Reimbursements	-	-	-13	-	-	-
3.3 Losses recognized in:	-99	-	-133	-	-	-
3.3.1 Income statement	-99	-	-5	-	-	-
- of which capital losses	*-23*	-	-	-	-	-
3.3.2 Shareholders' equity	X	X	-128	-	-	-
3.4 Transfers to other levels	-	-	-	-	-	-
3.5 Other decreases	-	-90	-1	-	-1	-
4. Final amount	**501**	**496**	**4,529**	**-**	**7**	**-**

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

(millions of euro)

	Financial liabilities held for trading	Financial liabilities designated at fair value	Hedging derivatives
1. Initial amount	**119**	**26**	**-**
2. Increases	**100**	**1**	**-**
2.1 Issues	1	-	-
2.2 Losses recognised in:	1	1	-
2.2.1 Income statement	1	1	-
- of which capital losses	*1*	*1*	-
2.2.2 Shareholders' equity	X	-	-
2.3 Transfers from other levels	98	-	-
2.4 Other increases	-	-	-
3. Decreases	**-61**	**-**	**-**
3.1 Reimbursements	-	-	-
3.2 Repurchases	-	-	-
3.3 Gains recognised in:	-16	-	-
3.3.1 Income statement	-16	-	-
- of which capital gains	*-16*	-	-
3.3.2 Shareholders' equity	X	-	-
3.4 Transfers to other levels	-41	-	-
3.5 Other decreases	-4	-	-
4. Final amount	**158**	**27**	**-**

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

(millions of euro)

	Financial liabilities held for trading	Financial liabilities designated at fair value through profit or loss	Hedging derivatives
1. Initial amount	**61**	**-**	**-**
2. Increases	**-**	**-**	**-**
2.1 Issues	-	-	-
2.2 Losses recognised in:	-	-	-
2.2.1 Income statement	-	-	-
- of which capital losses	-	-	-
2.2.2 Shareholders' equity	X	X	-
2.3 Transfers from other levels	-	-	-
2.4 Other increases	-	-	-
3. Decreases	**-61**	**-**	**-**
3.1 Reimbursements	-	-	-
3.2 Repurchases	-	-	-
3.3 Gains recognised in:	-	-	-
3.3.1 Income statement	-	-	-
- of which capital gains	-	-	-
3.3.2 Shareholders' equity	X	X	-
3.4 Transfers to other levels	-	-	-
3.5 Other decreases	-61	-	-
4. Final amount	**-**	**-**	**-**

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

(millions of euro)

Assets/liabilities not measured at fair value or measured at fair value on a non-recurring basis	30.06.2022		31.12.2021	
	Book value	Fair value	Book value	Fair value
1. Financial assets measured at amortised cost	657,716	648,426	668,866	677,651
2. Investment property	-	-	-	-
3. Non-current assets held for sale and discontinued operations	1,303	1,303	1,422	1,422
Total	**659,019**	**649,729**	**670,288**	**679,073**
1. Financial liabilities measured at amortised cost	690,781	689,632	710,055	712,203
2. Liabilities associated with non-current assets	92	92	30	30
Total	**690,873**	**689,724**	**710,085**	**712,233**

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

(millions of euro)

Assets/liabilities not measured at fair value or measured at fair value on a non-recurring basis	30.06.2022		31.12.2021	
	Book value	Fair value	Book value	Fair value
1. Investments held to maturity	-	-	-	-
2. Due from banks	40	40	41	41
3. Loans to customers	40	41	44	44
4. Investment property	-	-	-	-
5. Non-current assets held for sale and discontinued operations	-	-	-	-
Total	**80**	**81**	**85**	**85**
1. Due to banks	646	621	623	650
2. Due to customers	296	296	188	188
3. Securities issued	1,362	1,264	1,335	1,338
4. Liabilities associated with non-current assets	-	-	-	-
Total	**2,304**	**2,181**	**2,146**	**2,176**

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 fair value, the following table lists the effects of a change in one or more significant non-observable parameters used in the valuation techniques adopted to determine the fair value. Note that only the total material effects as at 30 June 2022 are shown in the table.

Financial assets/liabilities	Non-observable parameters	Sensitivity (thousands of euro)	Change in non-observable parameter
FVTPL and FVTOCI securities and loans	Credit spread	-564	1 bp
FVTPL and FVTOCI securities and loans	Correlation	204	1%
OTC Derivatives - Equity	Historical volatility	1,300	10%
OTC Derivatives - Equity	Correlation between underlying equity baskets	190	10%
OTC Derivatives - Equity CPPI	Historical correlation	-40	10%

Information on "Day one profit/loss"

Under IFRS 9, financial instruments shall be initially recognised at fair value. The fair value of a financial instrument at initial recognition is normally the "transaction price", i.e. the fair value of the consideration given or received in relation to, respectively, financial assets and liabilities. The fact that, upon initial recognition, the fair value of a financial instrument coincides with the transaction price is usually intuitively verifiable in the case of transactions falling under level 1 of the fair value hierarchy. Also in the case of level 2, which is based on quotes that can be derived indirectly from the market (Comparable Approach), the fair value and the price often coincide upon initial recognition. Any differences between the price and the fair value are usually allocated to the so-called commercial margins, which are taken to the income statement when the financial instrument is initially measured. Conversely, with respect to level 3 instruments, which have more discretion in fair value measurement, no definite reference benchmark is available to compare the transaction price with. For the same

reason, the calculation of any commercial margin to be taken to the income statement is also difficult. In this event, the instrument is always initially recognised at the transaction cost. Subsequent measurement shall not include the difference between cost and fair value identified upon initial recognition (also defined as Day-One-Profit - DOP). This difference shall be recognised in the income statement only when it arises from changes to 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 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 Bank carries out transactions which substantially eliminate the risks of the level 3 instrument which generated the DOP.

At the end of the first half of 2022, as at the end of 2021, the amount of the DOP deferred in the balance sheet was immaterial (around 0.1 million euro).

INFORMATION ON STRUCTURED CREDIT PRODUCTS

The risk exposure in structured credit products came to 3,779 million euro as at 30 June 2022, a net increase of 158 million euro compared to the stock of 3,621 million euro as at 31 December 2021. The exposure includes investments in ABSs (Asset-Backed Securities) of 1,932 million euro, in CLOs (Collateralised Loan Obligations) of 1,775 million euro and in CDOs (Collateralised Debt Obligations) of 72 million euro, which was confirmed as a marginal activity also in the first half of 2022.

(millions of euro)

Accounting categories	30.06.2022				31.12.2021	changes	
	Collateralized Loan Obligations	Asset Backed Securities	Collateralized Debt Obligations	Total		absolute	%
Financial assets held for sale	521	668	-	1,189	1,049	140	13.3
Financial assets mandatorily measured at fair value	-	3	-	3	3	-	-
Financial assets measured at fair value through other comprehensive income	781	881	-	1,662	1,701	-39	-2.3
Financial assets measured at amortised cost	473	380	72	925	868	57	6.6
Total	**1,775**	**1,932**	**72**	**3,779**	**3,621**	**158**	**4.4**

In this disclosure, structured credit products include debt securities held by the Group divided into tranches upon issue consisting of various degrees of subordination and not issued within the framework of transactions originated by entities of the Intesa Sanpaolo Group or by public entities, in addition to transactions whereby the Group finances its corporate and financial institution customers (operations implemented by the Group through the subsidiary Duomo Funding Plc).
The strategy for transactions in structured credit products shows a prevalence of investments aimed at exploiting market opportunities over disposals of the portfolio during the period.
The exposure in ABSs and CLOs measured at fair value went from 2,753 million euro in December 2021 to 2,854 million euro in June 2022, a net increase of 101 million euro, mainly attributable to operations on positions of the IMI Corporate & Investment Banking Division, mainly in the assets held for trading portfolio.
The exposure to debt securities classified as assets measured at amortised cost amounted to 925 million euro in June 2022, compared with an exposure of 868 million euro in December 2021, an increase of 57 million euro.
From the perspective of the income statement, as at 30 June 2022 a net loss of -19 million euro was recorded, which continued to be impacted by the geopolitical tensions, in a context in the first half of 2022 marked by a decrease in liquidity on the reference markets, an increase in credit spreads and a rise in inflation (in the first six months of 2021 the impact on the income statement was +8 million euro).
The loss on trading – caption 80 of the income statement – amounts to -22 million euro and relates to the valuation components on exposures in CLOs and ABSs (impact on the income statement as at 30 June 2021 of +7 million euro, of which +4 million euro relating to valuation effects and +3 million euro to gains on disposal).
The profit from financial assets mandatorily measured at fair value was nil as at 30 June 2022, compared to 1 million euro in the first half of 2021.
The exposures to debt securities classified as assets measured at fair value through other comprehensive income recorded a decrease in fair value of -25 million euro in the first half of 2022 through a shareholders’ equity reserve (from a reserve of -1 million euro in December 2021 to -26 million euro in June 2022); there were no impacts from sales from the portfolio, equivalent to 30 June 2021.
The result recognised on the debt securities classified as assets measured at amortised cost was +3 million euro as at 30 June 2022, essentially attributable to realised gains, compared to nil in the first six months of 2021.

(millions of euro)

Income statement results broken down by accounting category	30.06.2022				30.06.2021	changes	
	Collateralized Loan Obligations	Asset Backed Securities	Collateralized Debt Obligations	Total		absolute	%
Financial assets held for sale	-17	-5	-	-22	7	-29	
Financial assets mandatorily measured at fair value	-	-	-	-	1	-1	
Financial assets measured at fair value through other comprehensive income	-	-	-	-	-	-	-
Financial assets measured at amortised cost	-	1	2	3	-	3	-
Total	**-17**	**-4**	**2**	**-19**	**8**	**-27**	

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 (SPEs).
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 sponsor may be the Bank itself, which establishes a SPE to achieve one of the aims mentioned above.
SPE categories are non-consolidated structured entities, and no changes in criteria were made compared to the information provided in 2021 Annual Report.

With regard to the Covered Bond issue programmes, during the first half of the year, as part of the programme guaranteed by ISP CB Pubblico, the 10th retained series was decreased by 100 million euro in January and was redeemed in full in advance for 150 million euro in June. In June, the 12th series was partially extinguished for an amount of 225 million euro, bringing the remaining nominal amount to 1,050 million euro.
Under the covered bond programme guaranteed by ISP CB Ipotecario, in January repurchases were carried out of UTP loans for 112 million euro, while in May a portfolio of 2.7 billion euro was sold.
The 17th series matured in January for an amount of 1 billion euro. In February, the 28th series was issued for an amount of 1 billion euro. The security is a floating rate, 7-year security listed on the Luxembourg Stock Exchange with an Aa3 rating from Moody's, was fully subscribed by the Parent Company and it is eligible for the Eurosystem.
Under the programme guaranteed by ISP OBG, in January were repurchased UTP loans for 281 million euro, while in June the sale of a portfolio of 6.2 billion euro was finalised.
Lastly, with regard to the programme covered by UBI Finance, in January repurchases of UTP loans and trade receivables were carried out for 72 million euro, while in June a portfolio of 822 million euro was sold.
The 30th series was decreased by 200 million euro in January and fully extinguished in advance in February, for 100 million euro. In April, the 3rd series was fully paid off, for the remaining 11.3 million euro outstanding. In May, the 28th series was partially extinguished, for an amount of 100 million euro, bringing the remaining nominal amount to 600 million euro, while the 29th series was extinguished in advance, for a total of 600 million euro.

With regard to *securitisation transactions,* in the first half, the Brera SME, on the vehicle Brera Sec S.r.l., and Berica ABS 4 transactions were closed, with a total repurchase of loans by the originator Intesa Sanpaolo in March. The price was settled as follows: for Brera SME, at the end of April, in an amount of 1,781 million euro; for the transaction of the former Banca Popolare di Vicenza, Berica ABS 4, in the last ten days of June, for 236 million euro.
The securitisation Brera SME was extinguished in advance with full early redemption of the securities at the beginning of May, while Berica ABS 4 was closed at the end of June.

INFORMATION ON LEVERAGED TRANSACTIONS

In 2017, the ECB published specific Guidance on Leveraged Transactions, which applies to all the significant entities subject to direct supervision by the ECB. The stated purpose of the guidance is to strengthen company controls over "leveraged" transactions, in view of the global increase in leveraged finance activities and the highly competitive market, characterised by a prolonged period of very low interest rates and the ensuing search for yields.
The scope of the ECB Guidance includes exposures in which the borrower's level of leverage, measured as the ratio of total financial debt to EBITDA, is greater than 4, as well as exposures where the borrower is owned by one or more financial sponsors. Moreover, counterparties with Investment Grade ratings, private individuals, credit institutions, financial institutions and companies in the financial sector in general, public entities, non-profit entities, as well as counterparties with credit facilities below a certain materiality threshold (5 million euro), Retail SME counterparties and Corporate SME counterparties (the latter if not owned by financial sponsors) are explicitly excluded from the scope of Leveraged Transactions. Specialised lending transactions (project finance, real estate and asset financing) and certain other types of credit facilities, such as trade finance transactions, are also excluded.

As at 30 June 2022, for the Intesa Sanpaolo Group, the transactions that meet the definition of Leveraged Transactions as per the ECB Guidance amounted to approximately 31.1 billion euro, relating to 2,400 credit lines (35.3 billion euro as at 31 December 2021). The decrease on 31 December 2021 is concentrated on the Parent Company, and is mainly due to counterparties of significant amounts which, following the improvement in their ratings, as they were upgraded to investment grade in the second quarter of 2022, exited the scope of reporting.
In accordance with the requirements of the ECB Guidance, as part of the Credit Risk Appetite a specific limit for the outstanding stock of leveraged transactions and limits on new transaction flows were submitted for approval to the Board of Directors, in line with the Bank's risk appetite on these types of operations.

INFORMATION ON INVESTMENTS IN HEDGE FUNDS

The Parent Company's hedge fund portfolio as at 30 June 2022 amounted to 138 million euro for the trading book and 198 million euro for the banking book, compared to 27 million euro and 200 million euro, respectively, as at 31 December 2021.
The investments in the banking book are recognised under financial assets mandatorily measured at fair value and pertain to funds that adopt medium/long-term investment strategies and redemption times that are longer than those of UCITS (Undertakings for Collective Investment in Transferable Securities) funds.
In the first half of 2022, stocks increased by 109 million euro on 31 December 2021, due to new investments made in the trading segment, mainly due to positions taken in the second quarter of 2022 (investments increased by 93 million euro).
In terms of the income statement effects, as at 30 June 2022, an overall loss was recorded for -6 million euro, referring to the valuation of funds held in portfolio among financial assets mandatorily measured at fair value, compared to an overall impact of +12 million euro in the first six months of 2021 (-4 million euro from financial assets held for trading and +16 million euro from financial assets mandatorily measured at fair value), of which +10 million euro attributable to valuation effects and +2 million euro to realisation impacts.
In the Intesa Sanpaolo Group, as at 30 June 2022 the portfolio of Eurizon Capital SGR also includes hedge funds for 50 million euro, with an impact on the income statement of -3 million euro in the first half of the year. Hedge funds are held according to a seeding approach that involves setting up a service portfolio consisting of shares of mutual funds for which marketing has begun in support of the funds.

INFORMATION ON TRADING TRANSACTIONS IN DERIVATIVES WITH CUSTOMERS

Considering relations with customers only, as at 30 June 2022, 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 4,568 million euro (6,917 million euro as at 31 December 2021). The notional value of these derivatives totalled 33,327 million euro (64,254 million euro as at 31 December 2021).
In particular, the notional value of plain vanilla contracts was 30,191 million euro (59,649 million euro as at 31 December 2021), while that of structured contracts was 3,136 million euro (4,605 million euro as at 31 December 2021).
The positive fair value of contracts outstanding with the 10 customers with the highest exposures was 2,641 million euro (4,416 million euro as at 31 December 2021).
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 5,142 million euro as at 30 June 2022 (2,192 million euro as at 31 December 2021). The notional value of these derivatives totalled 70,769 million euro (34,378 million euro as at 31 December 2021).
In particular, the notional value of plain vanilla contracts was 65,508 million euro (31,493 million euro as at 31 December 2021), while that of structured contracts was 5,261 million euro (2,885 million euro as at 31 December 2021).

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 2022, this led to a positive effect of 74 million euro being recorded under "Profits (Losses) on trading" in the income statement.
As regards the methodologies used in determining the fair value of financial instruments, see the specific paragraphs of the section on accounting policies in the Explanatory notes.
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.

INTEREST RATE BENCHMARK REFORM

Interest Rate Benchmark Reform – General aspects

In recent years, the European benchmark rates have been undergoing extensive reform, largely due to the introduction of the European regulation on benchmarks (Benchmark Regulation, Regulation (EU) 2016/1011), published in 2016 and in effect since January 2018.
In the specific case of the short-term benchmark rates declared critical by the European authorities, reforms relating to the following were required:

- Euribor: the revision by the EMMI (European Money Market Institute) of the method for determining fixings ("hybrid" method), using transactions concluded on the unsecured money market of up to 12 months by provider banks, where available, came into full effect from November 2019.
- Eonia: from October 2019, the fixings have been calculated using the risk-free rate published by the European Central Bank (€STR rate), identified on the basis of the overnight transactions concluded by the major European banks. In

October 2021, the European Commission designated €STR also as the interest rate to be applied when a statutory replacement of the Eonia is required.

The €STR rate also constitutes the basis for the calculation of the Euribor fallback rate, to be indicated in the contracts and to be used in the event of any future permanent cessation of publication of the Euribor. To facilitate the calculation of replacement rates, since April 2021 the ECB has launched the daily publication of the Compounded €STR Index and compounded €STR average rates.

Outside the Euro Area, in the last few years the supervisory authorities, central banks, specialised associations and market operators in the various jurisdictions have actively worked to identify the risk-free rates (RFR) that could be used as the new benchmarks on the monetary markets.

More specifically, from 2016 onwards, various working groups indicated, also through official recommendations, the risk-free rates that will act as fallback rates for the Libor and which, in addition to complying with the IOSCO principles, will be more representative of the real market conditions, as they are based on actual transactions with significant, stable volumes.

The following is a summary of the framework of risk-free rates:

IBOR	Risk Free Rate	Administrator	Secured or Unsecured	Transaction
GBP LIBOR	SONIA	Bank of England	Unsecured	o/n wholesale deposits
USD LIBOR	SOFR	New York Fed	Secured	o/n UST repo
JPY LIBOR	TONAR	Bank of Japan	Unsecured	o/n call rate
CHF LIBOR	SARON	SIX Swisse Exchange Ltd.	Secured	interbank o/n report
EUR LIBOR	€STR	ECB	Unsecured	o/n wholesale deposits

Source: ICE Benchmark Administration, Intesa Sanpaolo

With its announcement of 5 March 2021, the Financial Conduct Authority (FCA) confirmed that the Libor would no longer be published or would lose validity (i) immediately after 31 December 2021 for all maturities of Pound Sterling, Euro, Swiss Franc and Japanese Yen and 1-week and 2-month maturities for the US dollar and (ii) immediately after 30 June 2023 for the remaining maturities on the US dollar (i.e. overnight, 1-month, 3-month, 6-month and 12-month).

On 29 September 2021, the FCA also announced that it was exercising its powers, compelling the Administrator of the Libor, ICE Benchmark Administration (IBA), to publish a synthetic Libor for the Pound Sterling and Yen for the 1-, 3- and 6-month maturities, clarifying that the use of those synthetic Libor indices is permitted exclusively for existing contracts that have not yet been converted to the alternative risk-free rates SONIA and TORF, respectively for the Pound Sterling and Yen, in order to guarantee the orderly wind down of the Libor. Though that publication in synthetic format is guaranteed for all of 2022, the FCA pointed out that the exercise of those powers is accompanied by an annual review, noting its intention not to renew the publication of the Yen Libor (which, therefore, would be wound down at the end of 2022) and the possible gradual restrictions to the use of the synthetic Libor of the Pound Sterling in legacy contracts.

Lastly, with regard to the US dollar, the main currency involved in the elimination of the Libor, the Alternative Reference Rates Committee (ARRC) took action on various fronts to accelerate the transition from the Libor to alternative rates based on the SOFR index, and specifically:
- publication of recommendations on best practices for the various product categories (e.g. loans, floating-rate bonds, derivatives, etc.) and the related timing for winding down the use of the US dollar Libor in new contracts;
- announcement of agreements for the various categories of contracts (e.g. pool loans, floating-rate bonds, cross-currency swaps, etc.);
- publication of the fallback clauses for the various categories of products.

Interest Rate Benchmark Reform – Intesa Sanpaolo's activities

In recent years, Intesa Sanpaolo has closely monitored the developments relating to benchmarks, and in 2016 it launched a dedicated project involving the participation of all the corporate functions involved in various capacities.

Leveraging the work of the special projects and within the expenditure limits set out in the project capital budget, the project work also continued in the first half of 2022, focusing on the following aspects in particular:
- continuation of the bilateral negotiations with counterparties to change the rate of return of the collateral of Credit Support Annexes (CSA) from €STR plus a spread of 8.5 basis points to the flat €STR, where requested by the specific counterparties;
- progressive greater use of €STR derivatives;
- definitive wind down of the offer of products linked to the Libor in GBP, CHF and JPY;
- continuation of the initiatives to facilitate and move up, to the extent possible, the winding down of the USD Libor in accordance with the recommendations of the ARRC and, where applicable, of EU or US legislation on statutory replacement, in preparation of the final transition to the SOFR rate in June 2023 and the correlated activities to include robust fallback clauses in the outstanding contracts linked to the Libor:
  - continuation of the projects and lines dedicated to bonds linked to the overnight risk-free rates (owned by the Bank and customers) and activation of projects to manage short-term and MLT issues;
  - with regard to the transition with clearing houses for derivatives in USD subject to clearing with underlying USD Libor, the Group participated in the Consultation of the Central Counterparty (CCP) LCH, addressed to its members, to gather feedback on operating aspects of the transition – which will occur in the second quarter of 2023 – in a similar manner to that carried out in December 2021 for derivatives with underlying GBP, JPY, CHF and EUR Libor. That active transition mechanism, similar to that set out in 2021 for other Libor currencies, is based on standard

rules for all participants and considers the criteria for determining spreads based on the fallback provisions drawn up by the industry as part of the benchmark reform;
- completion of preparation of the IT structure necessary for the use of RFRs in the Bank's accounting and management systems;
- constant reporting to the Group's International Subsidiaries and Branches;
- collaboration with the Italian authorities to support the development of the new RFR market;
- participation in surveys and public consultations at European level;
- providing feedback on transition readiness for foreign authorities in countries where Group companies are present, and to the ECB Joint Supervisory Team for general aspects related to the Group;
- planning additional delivery of specialist training to staff via remote learning and courses on the digital learning platform;
- updating of the disclosure to customers on the pages of the Group's website dedicated to illustrating the issue of the transition of benchmarks.

Intesa Sanpaolo has also continued to take part in various initiatives, among which the most significant were European working groups organised by EMMI, and by ESMA (the latter replaced the ECB in managing the Secretariat of the Working Group on Euro Risk-Free Rates).
In this latter area in particular, Intesa Sanpaolo also acted in the last year as a voting member and participant in individual project streams in the working group on euro risk free rates, in which it has also held the new role of Ambassador for Italy since 2020.

As reported in the "Accounting Policies", in the 2021 Financial Statements, Regulation (EU) 2021/25 of 13 January 2021, adopting the document "Interest Rate Benchmark Reform – Phase 2, Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16" published by the IASB on 27 August 2020 regarding issues pertaining to the second phase of the interest rate benchmark reform project (IBOR Reform), became binding and applicable for the first time from 2021. The main amendments introduced concern the possible accounting impacts of the application of the new rates (so-called replacement issue), in particular the accounting treatment of amendments to existing contracts and of hedge accounting. No impacts on the Intesa Sanpaolo Group were caused by the modifications with the characteristics envisaged by the standard, in line with the objective of the amendments introduced by the IASB aimed at preventing distortions in the financial statements as a result of the reform.
Referring to Part A, Section 5 - Other aspects of the 2021 Annual Report for a more detailed analysis of the financial instruments impacted by the IBOR Reform at the reporting date and the methods for managing the transitions adopted by the Group, it is noted that, in light of the regulatory measures and actions undertaken by the Group, no critical issues were identified in completing the transition by the planned deadlines, nor are any critical issues forecast in view of the future discontinuation of the USD LIBOR. Specifically, to manage the stock of existing instruments, the Group set out the mass adoption of the new Risk Free Rates (RFR) on the financial instruments newly subscribed, thus abandoning the use of the benchmarks impacted by the reform and stabilising the stock of transactions to be transitioned, on the one hand, while setting up the solutions for the transition to the new RFR, defined based on the main international recommendations, capable of minimising the financial impacts of the transition, on the other.

With reference to the benchmarks being wound down at the end of 2021, the transition activities have been successfully completed for all these benchmarks.
Specifically, as regards the remaining derivative contracts still outstanding at the end of 2021 with an underlying EONIA benchmark rate (EONIA OIS), as well as the contracts in which the EONIA is the collateral benchmark, no positions were open as at 30 June 2022.
It is also noted that the exposures relating to derivative contracts linked to the Libor to be wound down as at 31 December 2021 (mainly in relation to those expressed in GBP, CHF, JPY and EUR) were nil at the beginning of this year.
With regard to the other instruments linked to the GBP LIBOR, the renegotiations were completed according to the main international recommendations published and recognised by market participants.
Likewise, actions were also completed for transition to the respective RFRs for loans linked to the JPY LIBOR and CHF LIBOR.

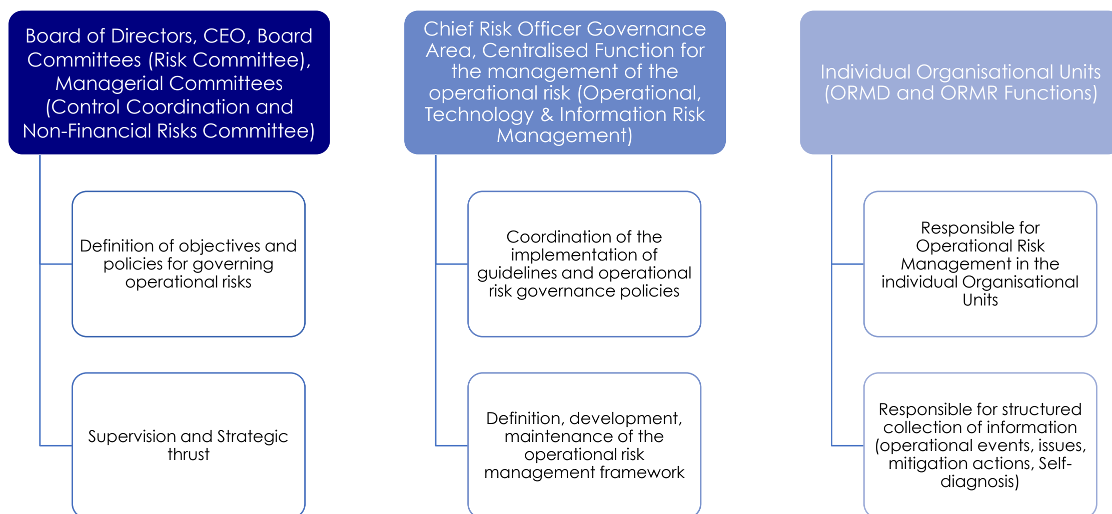
With reference to instruments linked to the USD LIBOR, the transition must be carried out by 30 June 2023 (the last date of publication of only the 1-week and 2-month USD LIBOR rates was 31 December 2021).
The date on which the USD LIBOR will no longer be used does not give rise to specific uncertainties except for those linked to trading timescales, which could be deferred by the counterparties. In any event, phases similar to those that were implemented for instruments linked to other benchmarks wound down at the end of 2021, both for cash and derivative instruments, are expected to follow.
Lastly, as regards the stock of outstanding instruments linked to the USD LIBOR, the financing side shows substantial stability. However, with regard to derivative instruments, the reduction in respective exposures open to risk, in some cases, was carried out through transactions of the opposite sign (in terms of sensitivity) which may have resulted in an increase in the number of transactions and nominal values if considered in absolute terms, on the one hand, while it resulted in a gradual reduction in exposure to that benchmark in terms of risk measures, on the other.

Furthermore, the Intesa Sanpaolo Group has applied since the 2019 Financial Statements Regulation (EU) 34/2020 of 15 January 2020, which adopted the document issued by the IASB on "Interest Rate Benchmark Reform (amendments to IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosures)", which introduced several amendments regarding hedge accounting designed to prevent uncertainties about the amount and timing of the cash flows arising from the rate reform from causing the discontinuation of existing hedges and difficulties in designating new hedging relationships.
Hedging derivatives impacted by the IBOR Reform are exclusively represented by derivatives linked to the USD LIBOR.

OPERATIONAL RISK

Operational risk is the risk of incurring losses resulting from inadequate or failed internal processes, people and systems or from external events[41].
The Intesa Sanpaolo Group adopts an undertaking and management strategy of operational risk based on prudent management principles and aimed at guaranteeing long-term solidity and continuity for the company. In addition, the Group pays particular attention to achieving an optimal balance between growth and profitability and the resulting risks.
In line with these objectives, the Intesa Sanpaolo Group has long since established an overall operational risk governance framework, by setting up a Group policy and organisational processes for measuring, managing and controlling operational risk.

Governance Model
An effective and efficient framework for managing operational risks must be fully integrated into decision-making processes and management of business operations. Accordingly, the Intesa Sanpaolo Group has chosen to involve the organisational units (business units, central/support structures) of the Parent Company, the Banks and Group companies with direct responsibility in the operational risk management process.



The Intesa Sanpaolo Group's operational risk governance process is divided into the following phases:
- identification: identification and description of potential areas of operational risk (e.g., operating events, presence of critical elements, applicability of Risk Factors, significant risk scenarios);
- measurement and assessment: determination of exposure to operational risks (e.g., self-diagnosis[42], determination of economic and regulatory capital, preventive analyses of operational and ICT risks, assessment of the significance of the issues identified);
- monitoring and control: ongoing supervision of the development of the exposure to operational risks, including to prevent the occurrence of harmful events and promote active risk management;
- mitigation: containment of operational risks through appropriate mitigation actions and suitable risk-transfer strategies according to a risk-driven approach;
- reporting: preparation of information flows related to operational risk management, designed to ensure adequate knowledge of the exposure to this risk.

ICT risk
The Intesa Sanpaolo Group considers its information system a tool of primary importance to the achievement of its strategic, business and social responsibility objectives, including in the light of the critical nature of the company processes that depend on it. Accordingly, it undertakes to create a resilient environment and to invest in assets and infrastructure designed to minimise the potential impact of ICT events and to protect its business, image, customers and employees.
The Group has therefore adopted a system of principles and rules intended to identify and measure the ICT risk to which company assets are exposed, assess the existing safeguards and identify adequate methods of managing such risks, in accordance with the operational risk management process.
In line with the methodological framework established for the governance of operational risks, the ICT Risk management framework has been developed with a view to integrating and coordinating the specific expertise of the structures involved.

[41] As far as the financial losses component is concerned, the Operational risk includes: legal and compliance risk, conduct risk, IT and Cyber risk, physical security risk, business continuity risk, financial crime and financial reporting risk, third-party and model risk. Strategic risk and reputational risk are not included.

[42] Self-diagnosis is the annual process through which the Organisational Units identify their level of exposure to operational and ICT risk. It includes Operational Risk Assessment and ICT Risk Assessment, both of which are further broken down into Business Environment Assessment (BEA) and Scenario Analysis (SA).

ICT (Information and Communication Technology) risk means the risk of economic, reputational or market share losses related to the use of information and communication technology. In the integrated view of corporate risk for supervisory purposes, this risk is considered, according to specific aspects, as operational, reputational and strategic risk. ICT risk includes Cyber risk and IT risk.

Internal model for the measurement of operational risk

The Intesa Sanpaolo Group's internal model for calculating capital absorption (the "Advanced Measurement Approach" or "AMA") is designed to combine all the main sources of quantitative information (internal and external operational losses and estimates deriving from the Scenario Analysis) and qualitative information (Business Environment Evaluation - VCO).

Capital-at-risk is therefore identified as the minimum amount at Group level required to bear the maximum potential loss (worst case). It is estimated using a Loss Distribution Approach model (actuarial statistical model to calculate the Value-at-risk of operational losses), applied to historical data and the results of the scenario analysis assuming a one-year estimation period, with a confidence level of 99.9%. The methodology also applies a corrective factor, which derives from the qualitative analyses of the risk level of the operational environment (VCO), to take into account the effectiveness of internal controls in the various Organisational Units.

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

Operational risk capital requirement

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

As at 30 June 2022, the scope of the Advanced Measurement Approach (AMA) is comprised of Intesa Sanpaolo (including the former Banks and Companies deriving from the UBI Banca Group, incorporated into Intesa Sanpaolo during 2021 and the first half of 2022) and the main banks and companies in the Private Banking and Asset Management Divisions, as well as of VUB Bank and PBZ Banka.

The capital absorption resulting from this approach amounts to 2,107 million euro as at 30 June 2022, slightly up from 2,024 million euro as at 31 December 2021.

Impacts from the COVID-19 pandemic

With regard to operational risks concerning the first half of 2022, there are no specific updates to report, and readers are referred to the description provided in the relevant section of the Annual Report as at 31 December 2021.

Impacts of the Russia-Ukraine conflict

As regards operational risks, the impacts of the Russia-Ukraine conflict regard several actions implemented to ensure the Group's business continuity operations, particularly the extra costs incurred for Business continuity and the losses resulting from physical damage directly caused to offices/branches located in the conflict zone.

Legal risks

As at 30 June 2022, there were a total of about 40,600 disputes, other than tax disputes, pending at Group level (excluding those involving Risanamento S.p.A, which is not subject to management and coordination by Intesa Sanpaolo) with a total remedy[43] sought of around 3,830 million euro. This amount includes all outstanding disputes, for which the risk of a disbursement of financial resources resulting from a potential negative outcome has been deemed possible or probable and therefore does not include disputes for which risk has been deemed remote.

The risks associated with these disputes are thoroughly and individually analysed by the Parent Company and Group companies. Specific and appropriate provisions have been made to the Allowances for Risks and Charges in the event of disputes for which there is an estimated probability of a disbursement of more than 50% and where the amount of the disbursement may be reliably estimated (disputes with likely risk). Without prejudice to the uncertainty inherent in all litigation, the estimate of the obligations that could arise from the disputes and hence the amount of any provisions recognised are based on the forward-looking assessments of the outcome of the trial. These forward-looking assessments are, in any event, prepared on the basis of all information available at the time of the estimate.

The disputes with likely risk amount to around 31,900 with a remedy sought of 1,984 million euro and provisions of 800 million euro. The component referring to the Parent Company Intesa Sanpaolo totals around 5,490 disputes, with a remedy sought of 1,627 million euro and provisions of 611 million euro. There were around 830 disputes relating to other Italian subsidiaries, with a remedy sought of 252 million euro and provisions of 94 million euro, while there were around 25,600 relating to international subsidiaries, with a remedy sought of 105 million euro and provisions of 95 million euro. The number of ongoing disputes is strongly affected by several cases of "mass" disputes abroad, with regard to claims concerning loan positions relating to the Serbian subsidiary Banca Intesa Beograd and loans in currencies other than the local currency relating to Privredna Banka Zagreb (a total of 24,800 positions). For more details, see the Notes to the 2021 financial statements. In Italy, the number relates to issues of anatocism and investment services (3,360 positions).

The breakdown according to the main categories of disputes with likely risk shows the prevalence of cases related to the Group's ordinary banking and credit activities: disputes involving claims relating to banking and investment products and services or on credit positions and revocatory actions account for about 75% of the remedy sought and 75% of the provisions. The remaining disputes mainly consist of other civil and administrative proceedings and labour disputes or criminal proceedings or proceedings related to operational violations.

[43] The figures for the remedy sought include the claims formulated, but do not include claims of indeterminate value, i.e. those that do not contain a specific financial claim when the dispute is initiated; the value of these disputes is determined during the course of the proceedings when sufficient information emerges for the valuation.

For the main pending disputes, the significant developments in the half year are described below. For previous disputes and a detailed illustration of significant individual disputes, see the Notes to the 2021 Annual Report of the Intesa Sanpaolo Group.

Dispute between Intesa Sanpaolo Vita S.p.A. and RB Holding S.p.A. and the Favaretto family

In May 2020, Intesa Sanpaolo Vita S.p.A. finalised an investment in RBM Assicurazioni Salute S.p.A., the leading Italian insurance company in the healthcare class held by RB Holding S.p.A. referring to the family of Roberto Favaretto, an operation that resulted in Intesa Vita S.p.A. currently controlling the insurance company, now named Intesa Sanpaolo RBM Salute S.p.A.

In May, Intesa Sanpaolo Vita sent the minority shareholders RB Holding S.p.A. an indemnity request pursuant to and in accordance with the investment contract, in relation to the emerging situations that gave rise (or could give rise) to liabilities currently quantifiable at over 129 million euro, which substantially involve:

- the increase in the charges for claims concerning the mètaSalute Policy due to the elimination of unfair business practices subject to proceedings launched by the AGCM (Italian Competition Authority);
- credit positions (per ‘premium settlements’) posted to balance sheet assets at the time of closing and fully written down following the closing, due to their verified uncollectibility;
- penalties for delays in payments of claims relating to the ASDEP – Healthcare for Employees of Public Entities Policy.

RB Holding S.p.A. rejected all charges and, in the third week of July, along with the Favaretto family, submitted a petition to the Arbitration Chamber of Milan, claiming the invalidity of several clauses in the investment contract and shareholders’ agreement of 2020 (including those relating to the put and call options on the minority interest and the non-competition agreement), breaches by Intesa Sanpaolo Vita of contractual commitments (such as the consultation clause relating to the renewal of the mètaSalute contract and the termination of the relationship with the previous Managing Director), the breach by the latter of the rules of good faith and fairness, with a request for compensation for damages totalling 423.5 million euro.

By the assigned deadline of 5 September, Intesa Sanpaolo Vita shall file an initial brief of defence and appointment of its arbitrator, deeming that, in agreement with its counsel, it has useful defence arguments to combat the claims of RB Holding, without prejudice to the indemnity request formulated by Intesa Sanpaolo Vita in May, whose content could also be the subject of a counterclaim in the arbitration initiated by RB Holding and the Favaretto family, without, therefore, having to initiate separate litigation proceedings.

Where consultation between the parties identifies the interest in an amicable settlement, the fact that the dispute is pending shall not impede the verification of the feasibility of such cases.

Disputes arising from the acquisition of certain assets, liabilities and legal relationships of Banca Popolare di Vicenza S.p.A. in compulsory administrative liquidation and Veneto Banca S.p.A. in compulsory administrative liquidation

Within the proceedings before the Constitutional Court, which originated from the referral order of 20 July 2021 in which the Court of Florence submitted the question of the constitutionality of Law Decree 99/2017, the Court initially set the hearing for 5 July 2022 and then postponed it to 4 October 2022. By 14 September, the Bank can file a brief to provide further evidence and arguments for the oral hearing before the Court.

With regard to the Excluded Disputes, the Court of Cassation has issued its first ruling (Order no. 9945 of 28 March 2022). The Court upheld the objection of lack of capacity to be sued raised by the Bank in a litigation concerning a loan already classified as “non-performing” at the date of the transfer and therefore not included in the Aggregate Set. The case had been brought, prior to the transfer, against Veneto Banca when it was a going concern and then resumed also against Intesa Sanpaolo after the initiation of the liquidation of the Venetian bank.

In 2019 and 2021, Intesa Sanpaolo sent several claims to the Banks in compulsory administrative liquidation containing requests (or reservations of the right to make subsequent requests) for reimbursement/indemnification of damages already incurred or potentially incurred and violations of the above-mentioned Representations and Warranties, in relation to Previous Disputes and Excluded Disputes, as well as in relation to the value and recoverability of several assets transferred to Intesa Sanpaolo.

The term set out in the Sale Contract (20 working days from receipt of the indemnity request), by which the Banks in compulsory administrative liquidation were to notify Intesa Sanpaolo of all complaints regarding the claims formulated, was repeatedly extended in agreement with the Liquidators and is currently set at 31 October 2022.

Società Italiana per le Condotte d’Acqua S.p.A. under Extraordinary Administration

In June 2022, the letter of warning and notice to pay was received from the Receivers of the Extraordinary Administration of Società Italiana per le Condotte d’Acqua S.p.A. admitted to the “Marzano” proceedings by way of Italian Ministerial Decree of 6 August 2018.

The counterparty alleges the Bank’s liability for unlawfully granting credit to the company, contributing to the continuation of its business at a loss and the aggravation of its failure.

The Receivers have formulated a request for compensation, currently out-of-court, for 380 million euro, reserving the right to provide a more accurate quantification of the damages. The preliminary investigation of that request is under way and, in the current phase, no risk forecast can be formulated, also due to the fact that the warning alleges the contribution by other banks in causing the failure, without identifying their specific wrongdoing.

The Extraordinary Administration has also promoted against Intesa Sanpaolo three bankruptcy revocatory actions before the Court of Rome, with a request to reimburse amounts of around 16 million euro.

Fondazione Cassa di Risparmio della Provincia di Macerata

In February 2022, Fondazione Cassa di Risparmio della Provincia di Macerata sent a non-judicial letter of warning and notice to pay to Intesa Sanpaolo (as successor to UBI Banca, which in turn had absorbed the good bank Nuova Banca delle Marche[44]), and a former representative of Banca delle Marche, for the financial and image-related damage allegedly suffered for a sum quantifiable at no less than 50 million euro.
The Foundation alleges that in 2012 it subscribed to the share capital increase resolved in October 2011 by the then Banca delle Marche, purchasing shares for a total amount of over 40 million euro, solely on the basis of its reliance on (i) the data contained in the bank's annual financial statements and (ii) the "Prospectus" produced for that capital increase, which later proved to be totally incorrect and misleading.
The Bank rejected the claim for damages in its entirety, arguing first of all that it lacked capacity to be sued and that the limitation period had expired, and also fully contesting the claims on the merits.

Fondazione Monte dei Paschi di Siena

In 2014 Fondazione Monte dei Paschi di Siena (the Foundation) proposed an action for compensation for damages referring to the loan granted in 2011 by a pool of banks (lending banks) to provide it with the resources to subscribe the share capital increase of Banca MPS. The damages claimed were allegedly due to the "capital loss" deriving from the reduction in the market value of the Banca MPS shares purchased using the sums disbursed by the banks. FMPS sued eight former directors of the Foundation that were in office in 2011 and the lending banks, which include Intesa Sanpaolo and Banca IMI. The claim for damages has been quantified at around 286 million euro, jointly and severally for all the defendants. The lending banks have been charged with tort liability due to their participation in the alleged violation by the former directors of the debt-equity ratio limit of the Foundation set in the charter.
Following the conclusion of the settlement agreement last December, the banks in the pool and the Foundation filed a joint petition for the partial settlement of the first instance proceedings.
As regards the appeal proceedings promoted by the banks regarding the lack of jurisdiction, with order dated 29 April 2022, the Court of Appeal of Florence declared the expiry of the proceedings between the banks and the Foundation.

Engineering Service S.r.l.

In 2015, Engineering Service S.r.l. brought a civil suit against the Ministry of Economic Development, BPER and UBI regarding the granting of public subsidies to businesses. The claimant accuses our Bank (and BPER) of delays in managing the approval procedure and disbursements – delays that allegedly resulted in a liquidity crisis for the company and the consequent loss of the public contribution.
A claim for damages for approximately 28 million euro was brought against our Bank.
The Bank's defence counsel argued that the approval times depended on BPER, to which it thus submitted a claim for indemnity.
The Court of Rome, with ruling of November 2021, which became final due to lack of appeal, fully rejected the claimant's application, ordering it to pay the legal fees of all the parties summoned.

Elifani Group

Lawsuit brought in 2009 by Edilizia Immobiliare San Giorgio 89 S.r.l. (now incorporated into Enselfin, which filed an appearance as its replacement), San Paolo Edilizia S.r.l., Hotel Cristallo S.r.l. and the guarantor-shareholder Mario Elifani seeking compensation for damages suffered due to alleged unlawful conduct by the Bank for having requested guarantees disproportionate to the credit granted, enforced pledge guarantees, applied usurious interest to mortgage loans and submitted erroneous reports to the Central Credit Register.
The dispute refers to the same circumstances mostly already cited in the disputes regarding anatocism and interest in excess of the legal amount brought by the aforementioned companies in 2004 and settled in early 2014.
The lawsuit had a favourable outcome for the Bank in both the first and second instances, while by order of December 2019, the Court of Cassation partially granted the adverse parties' petition, with referral of the matter. The adverse parties resumed the lawsuit before the Court of Appeal of Milan, quantifying the claim at approximately 100 million euro.
Lastly, with a ruling of June 2022, the Court of Appeal of Milan, reviewing the case, rejected the claims made by the claimants, ordering them to pay the legal fees.

Dispute regarding financial derivative instruments

With regard to the disputes with local entities, four new disputes were recorded during the half year:

- the Province of Catanzaro ordered the cancellation through internal review of the executive decision approving the derivative transaction entered in a pool with other banks. The Bank, together with the other members of the pool, appealed to the Catanzaro Regional Administrative Court to have the measure cancelled. Intesa Sanpaolo's potential risk amounts to 3.6 million euro;
- the Province of Varese, following the unsuccessful closure of a meditation promoted in April, launched proceedings in July before the Court of Milan, to rule null and void two derivatives entered into with the Bank, requesting that the Bank be ordered to pay 7.2 million euro both as repayment and as compensation due to contractual or tort liability.
- The Province of Imperia served a writ of summons with which the Authority alleged the invalidity of the derivative and requested the restitution of the differentials paid, as well as compensation for damages without quantifying its claim. This action followed the mediation proceedings that ended in November 2021 with a negative outcome. The potential risk for the Bank amounts to 5 million euro;

[44] Note that those disputes are backed by the warranties and obligations to indemnify by the Seller (National Resolution Fund) for the benefit of UBI Banca in relation to the acquisition of the New Banks deriving from the resolution of Banca delle Marche, Banca Popolare dell'Etruria e del Lazio and Cassa di Risparmio della Provincia di Chieti and therefore also cover any liabilities arising from the activities carried out by the Banks (the "Old Banks") before they were subject to the resolution procedure, in relation to, *inter alia*, risks of a legal nature or generally related to ongoing or threatened disputes, or violations of the law and any potential liabilities.

- the Municipality of Marsciano brought an action before the Court of Perugia for the declaration of invalidity of the derivative entered into with the Bank, requesting the restitution of 81 thousand euro for differentials paid and implicit costs.

Four rulings were also received in the following disputes:

- Municipality of Faenza: with a decision dated 1 February 2022, the Court of Appeal of Bologna, recalling the principles expressed by the Joint Sections with ruling no. 8770/2020, confirmed the invalidity of the contract due to failure to indicate the Mark to Market (MTM) and ordered the Bank to repay the differentials charged to the Entity. In execution of the first instance ruling, the Bank had already paid 2.8 million euro. An appeal was lodged with the Court of Cassation;
- Municipality of Santa Maria Capua Vetere: the Court of Rome, in its ruling of 2 March 2022, rejected the claim of invalidity of the two derivative contracts, made by the Municipality, and upheld the Bank's counterclaim for the unpaid amounts from the Municipality totalling 119 thousand euro. However, the court upheld the claim for implicit costs not disclosed at the time of signing and ordered the Bank to pay 1.1 million euro plus interest and revaluation. The ruling was not appealed, and contacts are under way with the Authority to agree on the methods for fulfilling the order;
- Municipality of Vittorio Veneto: the Court of Venice, with non-final ruling of 29 March 2022, voided two contracts due to lack of elements of the MTM and probabilistic scenarios, deemed essential in line with the unfavourable approach taken by the Joint Sections 8770/2020. In a separate order, the judge returned the lawsuit to the preliminary investigation phase, ordering a court-appointed expert's report to determine the flows due to the Municipality. Thus, the proceedings were postponed to 26 October 2022. The potential risk to the Bank amounts to 5.8 million euro;
- Province of Pavia: with decision dated 4 May 2022, the Court of Appeal of Milan, agreeing with the principles set out by the Court of Cassation, confirmed that the contract was null and void due to lack of indication of the MTM and the probabilistic scenarios. In execution of the first instance ruling, the Bank had already paid 10.1 million euro. An appeal to the Court of Cassation is being considered.

With regard to the pending litigation, in the first half, it is noted that the dispute promoted in December 2013 by the Municipality of Mogliano Veneto reached the Court of Cassation and was settled in the wider context of a credit operation of renegotiation of the mortgage that represents the debt underlying the derivative that is the subject of the lawsuit. As a result of the agreement reached, the Bank and the Municipality of Mogliano filed waivers of the lawsuits and the Court of Cassation declared the proceedings extinct, with decree of 13 January 2022. The operation resulted in the termination of the derivative contract, with charges borne by the Bank for a total of 5.3 million euro.

With regard to the pending dispute with Companies controlled by Public Entities, in the proceedings promoted by Azienda Socio Sanitaria territoriale Valle Olona, the Court of Busto Arsizio, with ruling of 6 April 2022, declared the contract null and void due to an unspecified purpose, and ordered the Bank to return the amount of 1.8 million euro, already paid to the Entity. The ruling has been appealed.

Labour litigation

In line with the situation as at 31 December 2021, as at 30 June 2022 there were no significant cases of labour litigation, also with respect to the former UBI Banca Group, from either a qualitative or quantitative standpoint. In general, all labour litigation is covered by specific provisions adequate to meet any outlays.

Tax litigation

At Group level, the total value of the claims for tax disputes (taxes, penalties and interest) was equal to 222 million euro in June 2022 (215 million euro as at 31 December 2021).
The related risks are covered by adequate provisions for risks and charges, equal to 68 million euro (76 million euro as at 31 December 2021).
With regard to the Parent Company, there were 579 pending litigation proceedings (628 as at 31 December 2021) for a total amount claimed (taxes, penalties and interest) of 128.6 million euro (135.4 million euro as at 31 December 2021), considering both administrative and judicial proceedings at various instances.
In relation to these proceedings, the actual risks were quantified for the Parent Company at 55.2 million euro as at 30 June 2022 (56.5 million euro as at 31 December 2021).
During the half year, the litigation settled (known as findings closed) by the Parent Company totalled 146 proceedings, for a total amount claimed of 17.4 million euro, with an outlay of 2.4 million euro, mainly referring to claims for municipal property tax (IMU) (2 million euro).

Compared to the figures for 31 December 2021, for the Italian subsidiaries, higher claims were recorded for a total of 16 million euro, with lower provisions of 2 million euro.

The main changes relate to a notice of assessment for IRES and IRAP taxes for 2017, served in April 2022 to Intesa Sanpaolo Private Banking (total claim of 8.5 million euro) and a notice of an assessment for 2011 served in June 2022 to Cargeas Assicurazioni, where higher tax on insurance companies was assessed for 1.3 million euro, plus 0.5 million euro in interest and 2.8 million euro in penalties, for a total of 4.6 million euro.

The tax disputes involving foreign subsidiaries are of small amounts and are covered by provisions as to 67% of the risk. In particular, the claims have a total value of 6 million euro (9 million euro as at 31 December 2021) for which provisions of 4 million euro have been set aside (8 million euro as at 31 December 2021). Thus, claims decreased by 3 million euro and provisions by 4 million euro.
The changes in the amount claimed and the related provisions for risk are mainly due to the settlement of several disputes relating to Alexbank, entirely provisioned.
In the following paragraphs, information is provided regarding the most important ongoing disputes.

Parent Company

Disputes regarding registration tax on the reclassification of business contributions and subsequent sale of the participations as sales of business units and the consequent assessment of a higher enterprise value

The dispute relating to the business contribution and subsequent sale of the participation by Banca di Trento e Bolzano to Intesa Sanpaolo is noted, reclassified by the Italian Revenue Agency as a direct sale of a business (also pursuant to the aforementioned Art. 20 of Italian Presidential Decree no. 131/1986), with a demand for proportionate registration tax (0.8 million euro) plus interest (0.3 million euro), amounts provisioned at the time. In a ruling filed during the half year, the Court of Cassation found that the reclassification of the deed of contribution of a business line, followed by the sale of the investments in the contributed company is no longer permitted by law (pursuant to Art. 20 of Italian Presidential Decree no. 131/1986) and that the tax nature of the deed requires registration tax, as also observed by the Court of Cassation in ruling no. 158/2020. As a result, the amounts provisioned at the time (1.1 million euro) were released.
Reference should be made to the Notes to the Consolidated Financial Statements 2021 for more information on these disputes.

Dispute regarding the municipal property tax ("IMU") on real estate not repossessed following the termination of the related lease contracts

The total remedy sought is 7 million euro, fully provisioned for.
Reference should be made to the Notes to the Consolidated Financial Statements 2021 for more information on these disputes.

Dispute regarding VAT on boat lease transactions

With regard to the merged company Mediocredito Italiano, note the VAT claim triggered by the general audit by the Milan tax policy (*Guardia di Finanza)* on 17 April 2019. In referring to the Notes to the Consolidated Financial Statements 2021, the following is noted regarding the status of the claims:

- for tax year 2014, the ruling of the Milan Provincial Tax Commission was filed, partially favourable to the Bank, where, in acknowledging the reduction of the taxes, previously cancelled by the Italian Revenue Agency due to internal review, the judges recognised the penalties applied as not being due, reducing the original notice from the initial approximately 5.5 million euro to the current approximately 2 million euro. The appeal is being prepared;
- for the tax year 2015, the notice of assessment was settled through a payment of around 2 million euro, using the allowance for tax litigation, previously established in 2019, for 2.9 million euro;
- for the tax year 2016, a notice of assessment was served regarding one single finding of tax exemption pursuant to Article 8-bis of Italian Presidential Decree no. 633/72, to which the tax exemption was applied, which is subject to full provisioning (for taxes, penalties and interest) but which will be appealed, in any event (remedy sought of 1.5 million euro).

For 2014, the Bank made provisions with regard to the former claim, solely for the risk of tax and interest, and not also for the risk of penalties, whereas for the latter claim, provisions were prudently made on interest and penalties, deeming it possible to exercise recourse against the customer for the tax. For 2016, provisions were made for the taxes and related interest.

* * *

As regards the branches of Intesa Sanpaolo located abroad, there were no significant changes on the audits reported in the Notes to the Consolidated Financial Statements 2021, compared to which we note only that the audit begun by the Madrid Revenue agency in April 2021 for the year 2016 for the purpose of income taxes on the Madrid branch of the merged company UBI Banca was closed without any amount due.

Group Companies

With regard to the Italian companies of the Group, updates on the main issues are provided below.

For information on the disputes of Intesa Sanpaolo Private Banking regarding the deductibility of amortisation of goodwill arising from the contribution of business units, refer to the Notes to the Consolidated Financial Statements 2021 and the Interim Statement as at 31 March 2022. In that regard, it is noted that in March 2022 the second instance judgment relating to the years 2014 and 2015 was filed, favourable to the Bank, while in April 2022 the notices of assessment for IRES and IRAP tax for the year 2017 were served, for a total claim of 8.5 million euro (4 million euro for taxes, 4 million euro for penalties and 0.5 million euro for interest). In June the appeals were filed with the Provincial Tax Commission.

The total amount claimed, including taxes, penalties and interest, amounts to 60.9 million euro. The risk of liability has been assessed as possible, because the legitimacy of the realignment of goodwill that is newly generated by the contributed company has been expressly acknowledged by the Agency in its Circular no. 8/E of 2010, and is in line with the provisions of Art. 15, paragraph 10 of Law Decree no. 185/2008.

Also for Cargeas Assicurazioni, reference should be made to the Notes to the Consolidated Financial Statements 2021. In that regard, we note that the notice of assessment for the year 2010 (remedy sought totalling 5.7 million euro) was appealed before the tax judicial bodies and the hearing for discussion of the dispute before the Provincial Tax Commission of Milan was held on 25 February 2022 and to date, we are awaiting the filing of the ruling.

Moreover, on 6 June 2022, the company received a notice of assessment for 2011 claiming a higher tax of 1.3 million euro, 0.5 million euro in interest and 2.8 million euro in penalties, equal to 200% of the assessed tax (minimum penalty prescribed by law), for a total of 4.6 million euro.

The grounds set out in the tax document indicated for the year 2011 are identical to those indicated in the previous deed mentioned referring to the year 2010, as the Italian Revenue Agency did not make any changes or additions thereto.

For this reason, and pending the outcome of the decision that will be taken by the Provincial Tax Commission of Milan regarding the hearing held on 25 February 2022 with regard to the dispute on the year 2010, the Company deems that the risk of a negative outcome regarding the year 2011, equivalent to that for the year 2010, should be deemed possible, but not probable.

Provis has municipal property tax (IMU) and municipal tax (TASI) claim procedures that are pending or about to commence with a total value of 3.6 million euro. The corresponding provision for risks amounts to 3.9 million euro, inclusive of legal expenses.

With regard to the foreign subsidiaries, for information on Intesa Sanpaolo Bank Albania, Intesa Sanpaolo Brasil S.A. – Banco Multiplo, Intesa Sanpaolo Banka D.D. Bosna I Hercegovina, Pravex Bank, PBZ Card d.o.o. and UBI Trustee S.A. refer to the Notes to the Consolidated Financial Statements 2021.

Below are several changes regarding subsidiaries, which were also commented on in the previous Financial Statements.

Alexbank has two pending tax audits concerning corporate income tax, referring to tax year 2018. At present no claims have been put forward. In addition, there is a pending dispute concerning the non-payment of stamp duty. The quantification of potential liabilities was updated, and is fully provisioned for. The tax audit on stamp duty relating to the tax period 2019 was closed with no findings.

The tax audit on IMI SEC in relation to direct taxes for the years 2015 and 2016 was closed without any findings. Instead, an audit by the State of New York is under way regarding income tax, for the years 2015, 2016 and 2017. No findings are noted for the time being.

Since April 2022, EXELIA has been subject to a tax audit by the Romanian tax authorities with regard to corporate income tax relating to the tax periods 2016 and 2017. No findings are noted for the time being.

Lastly, we note a dispute pending in Brazil in relation to the former subsidiary Banco Sudameris Brasil (now Banco Santander Brasil), sold in 2003 to ABN AMRO Brasil (now the Santander Group), whose economic charge falls on Intesa Sanpaolo due to the commitments entered into with the seller at the time.

This dispute, which regards a charge that was not settled by way of the 2019 Settlement Agreement with Banco Santander Brasil, is entitled "Causa PDD1" and is based on the issue of taxes on income and social security contributions for 1995.

The change during the half year concerns the issue on 13 June 2022 of an opinion by Prof. Tercio Sampaio Ferraz in which, *inter alia,* he confirms the argument put forth by Intesa Sanpaolo that the settlement with regard to the year 1995, based on specific local Brazilian law (Art. 17 of Brazilian Law no. 9799/1999), the subject of an administrative dispute closed in favour of the taxpayer with two decisions of the Administrative Court (CARF), cannot be put under discussion once again.

Those arguments confirm that a negative ruling in relation to the interest component (approximately 25 million euro) is remote. On taxes and penalties (equal to a total of 15.6 million euro) we prudentially confirm the provisions of 50% of that amount, totalling 7.8 million euro (+1 million euro compared to 31 December 2021). The increase is due to the appreciation of the Brazilian currency on the Euro compared to the last exchange rate recorded.

INSURANCE RISKS

Investment portfolios

The investments of the insurance companies of the Intesa Sanpaolo Group (Intesa Sanpaolo Vita, Intesa Sanpaolo Assicura, Intesa Sanpaolo Life, Fideuram Vita, Intesa Sanpaolo RBM Salute and Cargeas) 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 2022, the investment portfolios, recorded at book value, amounted to 193,489 million euro. Of these, a part amounting to 104,681 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 Unit-linked policies and pension funds and amounted to 88,808 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 shareholder fund.
In terms of breakdown by asset class, net of derivative financial instruments, 84.3% of assets, i.e. approximately 88,140 million euro, were bonds, whereas assets subject to equity risk represented 2.1% of the total and amounted to 2,222 million euro. The remainder (14,244 million euro) consisted of investments relating to UCI, Private Equity and Hedge Funds (13.6%).
The carrying value of derivatives came to approximately 75.6 million euro, of which 85.3 million euro relating to effective management derivatives[45], and the remaining portion (-9.7 million euro) is attributable to hedging derivatives.
At the end of the first six months of 2022, investments made with the free capital of Intesa Sanpaolo Vita and Fideuram Vita amounted to approximately 2,092 million euro at market value, and presented a risk in terms of VaR (99% confidence level, 10-day holding period) of approximately 33 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 4,760 million euro.
The distribution of the portfolio by rating class is as follows. AAA/AA bonds represented approximately 7.4% of total investments and A bonds approximately 8.4%. Low investment grade securities (BBB) were approximately 80.1% of the total and the portion of speculative grade or unrated securities was minimal (4.1%).
A considerable portion of the BBB area is made up of securities issued by the Italian Republic.
The analysis of the exposure in terms of the issuers/counterparties produced the following results: securities issued by Governments and Central Banks approximately made up 78% of the total investments, while financial companies (mostly banks) contributed approximately 13.2% of exposure and industrial securities made up approximately 8.8%.
At the end of the first half of 2022, 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 5,086 million euro, with 4,242 million euro due to government issuers and 844 million euro to corporate issuers (financial institutions and industrial companies).

Impacts from the COVID-19 pandemic

With regard to insurance risks concerning the first half of 2022, there are no specific updates to report, and readers are referred to the description provided in the relevant section of the Annual Report as at 31 December 2021.

Impacts of the Russia-Ukraine conflict

Following the escalation of the geopolitical tensions between Russia and Ukraine, the Risk Management Department has constantly monitored the evolution of the risks and their effects on the business of the Insurance Group, with a specific focus on exposures to countries directly involved in the conflict. In that area, exposure is residual (less than 0.2% of total assets).

[45] 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.