Pillar 3 Disclosure

Update as at
31 December 2020

MONTE DEI PASCHI DI SIENA
BANK SINCE 1472

Pillar 3 Disclosure

Update as at
31 December 2020

Banca Monte dei Paschi di Siena SpA
Company Head Office in Siena, Piazza Salimbeni 3, www.mps.it
Recorded in the Arezzo-Siena Company Register – Registration no. and tax code 00884060526
MPS VAT Group – VAT no. 01483500524
Member of the Italian Interbank Deposit Protection Fund. Bank Register no. 5274
Parent Company of the Monte dei Paschi di Siena Banking Group, registered with the Banking Groups Register

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Introduction

The New Regulations for the Prudential Supervision of banks and banking groups entered into force as of 1 January 2014.

The regulations aim to align national requirements with the changes introduced to the International regulatory framework, following reforms in the Basel Committee agreements (Basel 3), particularly the European Union's New Regulatory and Institutional Framework for Banking Supervision.

In particular, the contents of the "Basel 3 framework" have been adopted within the EU through two capital requirement rules:

- ✓ CRR – Capital Requirements Regulation (EU) 575/2013 of the European Parliament and Council of 26 June 2013 regarding prudential requirements for credit institutions and investment firms, which amends Regulation (EU) 648/2012;
- ✓ CRD IV – Capital Requirements of the European Parliament and Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

The current regulatory package includes application criteria, set out in the *Regulatory Technical Standards* (RTS) and *Implementing Technical Standards* (ITS) adopted by the European Commission, upon the proposal of the European Supervisory Authorities.

At national level, the new harmonized framework has been implemented by Bank of Italy with circular No 285 of 17 December 2013 and subsequent updates – Supervisory Provisions for Banks, which contains the prudential supervision regulations applicable to Italian banks and banking groups, reviewed and updated to adjust the internal regulations to the new elements of the international regulatory framework, with special reference to the new regulatory and institutional structure of banking supervision of the European Union and taking into account the needs detected while supervising banks and other intermediaries.

The current regulatory *framework* aims to improve the ability of banks to absorb shocks arising from financial and economic stress, whatever the source, improve risk management and *governance* and strengthen the bank's transparency and disclosures, while taking into account developments from the financial crisis.

The Basel Committee has maintained a three Pillars-based approach which was at the basis of the previous capital accord known as "Basel 2" but has integrated and strengthened it to increase the quantity and quality of banks' capital base and introduce countercyclical supervisory tools as well as new standards for liquidity risk management and financial deleveraging.

More specifically, Pillar 3 was designed on the notion that Market Discipline can be harnessed to reinforce capital regulation to promote stability and soundness in banks and financial systems.

Pillar 3, therefore, aims to complement the minimum capital requirements (Pillar 1) and supervisory review process (Pillar 2) by developing a set of transparent disclosure requirements which will allow market participants to have access to key, fully comprehensive and reliable information on capital adequacy, risk exposures and risk identification, measurement and management processes.

Public Disclosure (Pillar3) is now governed directly by European Regulation no. 575/2013 of 26 June 2013 of the European Parliament and Council, Part 8 and Part 10, Title I, Chapter 3 (hereinafter referred to as "The Regulations" or "CRR").

According to Article 433 of CRR, institutions shall publish information at least on an annual basis along with their financial statements and to evaluate the need to publish some or all disclosures more frequently than once a year depending on their specific activities. Institutions are to assess the possible need for more frequent disclosure of items of information laid down in Article 437 (Own Funds), and Article 438 (Capital Requirements), and information on risk exposure and other items prone to rapid change.

The EBA (*European Banking Authority*) subsequently issued, in accordance with Article 16 of Regulation EU n. 1093/2010, its guidelines (EBA/GL/2014/14 of 23 December 2014), on the need to publish information more frequently than once a year. In view of the above regulations and in the interest of transparency and continuity, the Group publishes summary information on its Own Funds, Capital Requirements and Leverage in its quarterly reports, providing further information on exposures subject to internal models in its half-year report.

This document provides a full update as of 31 December 2020 and presents the disclosure templates provided for by the current regulatory framework.

In December 2016, the EBA published a first version of the *"Guidelines on disclosure requirements under Part Eight of Regulation (EU) 575/2013"* (EBA/GL/2016/11), subsequently updated in June 2017, providing financial institutions with specifications on the information requested in specific articles of Part Eight of the CRR. This document was supplemented with the information schemes of such Guidelines, the placement of which within the document is summarised in Appendix 2. The information was also supplemented on the basis of the EBA orientations.

Information must be both qualitative and quantitative in nature and be structured so as to provide a comprehensive overview of the risks assumed, the features of the management and control system and the capital adequacy of the Montepaschi Group.

The EBA also supplemented the abovementioned guidelines with the publication, in June 2017, of the "Guidelines on LCR disclosure under Article 435 of Regulation (EU) 575/2013" (EBA/GL/2017/01), containing additional disclosure requirements for liquidity risk measured through the Liquidity Coverage Ratio.

In January 2018, the EBA issued the *"Guidelines on uniform disclosures under Article 473a of Regulation (EU) 575/2013 as regards the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds"* (EBA/GL/2018/01) on transitional arrangements aimed at lessening the impact of the introduction of the IFRS9 on own funds, by introducing additional informational requisites.

In December 2018, the EBA - at the end of the public consultation process launched in April - published the final version of the document "*Guidelines on disclosures of non-performing and forborne exposures*" (EBA/GL/2018/10), applicable from 31 December 2019 and aimed at promoting uniformity in the disclosure requirements for NPLs, published by the ECB in March 2017 aimed at promoting uniformity in the *disclosure* requirements for NPLs.

On 2 June 2020, the EBA published guidelines for reporting and disclosure of exposures subject to the measures applied in response to the COVID-19 crisis EBA/GL/2020/07), whose first-time application, for disclosure purposes, starts on 30 June 2020.

In the context of the aforementioned crisis, was published with an accelerated approval procedure (the "*quick fix*"), Regulation (EU) 2020/873 of 24 June 2020, amending Regulations (EU) 575/2013 and Regulation (EU) 2019/876 containing temporary support provisions in terms of capital and liquidity. The Regulation establishes that institutions that decide to apply the provisions of the new transitional IFRS 9 rules relating to adjustments to loans after 31 December 2019, amending the rules introduced by Regulation (EU) 2017/2395, and/or the temporary treatment of unrealised gains and losses measured at fair value through other comprehensive income in view of the COVID-19 pandemic (the prudential filter for exposures to central governments classified as FVTOCI) in addition to disclosing the information required in Part Eight of the CRR, are required to disclose the amounts of own funds, Common Equity Tier 1 capital and Tier 1 capital, the total capital ratio, the Common Equity Tier 1 capital ratio, the Tier 1 capital ratio, and the leverage ratio they would have in case they were not to apply that treatment.

Lastly, the Pillar 3 disclosure as of 31 December 2020 has been prepared taking into account the provisions contained in Circular no. 262 of 22 December 2005 issued by the Bank of Italy "Bank financial statements: layout and rules for compilation", as amended by the sixth update issued on 30 November 2018 and integrated by the notice issued on 15 December 2020 by the Bank of Italy concerning the impact of COVID-19 and the measures in support of the economy and the IAS/IFRS amendments.

Pillar 3 Disclosure is prepared at consolidated level by the Parent Company.

Unless otherwise indicated, all the amounts in this report are stated in TEUR (thousand Euros).

As an aid to understanding and clarifying certain terms and abbreviations used in this report, please refer to the Glossary provided at the end of the document.

The Board of Directors, vested with strategic and management supervision functions:

- defines the process of Public disclosure;
- approves the policies, procedures, organizational supervision as well as the Group's guidelines on the content of the Public disclosure;
- approves the regular updates of the Public disclosure Pillar 3.

With regards the process of preparing the Pillar 3 disclosure, the Management Body (CEO/GM):

- defines the guidelines, roles and responsibilities of the functions involved;
- assesses whether the Pillar 3 disclosure provides a comprehensive description of the Group's profile to market participants;
- issues the declaration provided for in Article 435 of Regulation (EU) n. 575/2013 ("CRR");
- submits periodic updates of the Pillar 3 disclosure to the Board of Directors.

The Basel 3 Pillar 3 disclosure of Montepaschi Group is accompanied by the certification by the Manager responsible for preparing the Company's financial reports, in accordance with paragraph 2 of the already mentioned Art. 154-bis of the Consolidated Law on Finance. The document is submitted for approval by the Board of Directors and subsequently published on the Montepaschi Group's website.

The Montepaschi Group regularly publishes its Pillar 3 disclosure on its website at: www.gruppomps.it/investor-relations.

Additional information required under the CRR is published in the Annual Report as at 31 December 2020, the Corporate Governance Report and the Remuneration Report. Based on art. 434 of the CRR, which provides for the possibility to refer to other public disclosure documents, the Group makes use of this opportunity to complete the information, appropriately stating the reference to other documents. In particular, the different types of risk to which the Banking Group is exposed are also reported in Part E of the Notes to the Consolidated Financial Statements based on the provisions of IFRS 7 and related instructions issued by the Bank of Italy (Circular 262 and its updates). Part E reports on:

- credit risk (Part E – Information on risks and hedging policies: Section 2 – Risks of Consolidated Financial Statements: 1.1 Credit risk);
- market risk (Part E – Information on risks and hedging policies: Section 2 – Risks of Consolidated Financial Statements: 1.2 Market risk);
- Banking Group Liquidity risk (Part E – Information on risks and hedging policies: Section 2 – Risks of Consolidated Financial Statements: 1.4 Liquidity risk).

The Montepaschi Group does not publish the information required by art. 455 of the CRR on the use of internal models for market risk as it adopts the standardized approach to calculate capital requirements for market risk.

The Corporate Governance Report, published under the Corporate Governance section of the Group's website, Corporate Governance Reports, contains all the information required by paragraph 2 of art. 435 of the CRR:

1. the number of directorships held by members of the management body;
2. the recruitment policy for the selection of members of the management body and their actual knowledge, skills and expertise;
3. the policy on diversity regarding selection of members of the management body, its objectives and any relevant targets set out in that policy, and the extent to which these objectives and targets have been achieved;
4. whether or not the institution has set up a separate risk committee and the number of times the risk committee has met;
5. the description of the information flow on risk to the management body.

Starting from the last week of February 2020, the health emergency induced by the ongoing pandemic affected both market performance and commercial operations, the latter penalized by increasingly stringent containment measures imposed, which led to the interruption of many production activities in Italy and in the world. The recovery path will inevitably depend on the correct exploitation of the resources made available by European countries. The risk remains that, once the phase of exceptional support of economic policies is over, growth will not be sufficiently sustained to allow the management of public (and private) debts that have considerably increased in the meantime. The serious situation caused by the pandemic is strongly contrasted by the measures of the budget policy in direct support to demand, included for Italy in particular in the "Cura Italia" and "Rilancio" law decrees. Measures such as the credit moratorium and public guarantees on new loans were in fact fundamental in preventing further negative effects from materializing, avoiding liquidity crises in companies.

With reference to operational risks, the modification and/or extension of some existing processes, such as those relating to digital services, web collaboration tools and smart working tools, and the inability to implement standard business processes, but to envisage "in derogation" procedures, for example for the process of formalising contracts, inevitably exposes the Group to greater operational risks relative to possible legal disputes, potential fraud and cyber attacks. However, the Group believes that these potential risks can be mitigated in light of the numerous initiatives adopted, such as strengthening the control and monitoring system, and in consideration of the reasons that prompted the Group to promptly comply with the provisions issued in order to support the country during a health emergency and protect its production system. Issues related to the impacts of the

COVID-19 pandemic are discussed in more detail in the Consolidated Financial Statement as of 31 December 2020.

On 1 December 2020, the partial non-proportional partial demerger transaction with asymmetric option by the Parent Company in favour of AMCO, a company controlled by the MEF, became effective. The transaction resulted in the cancellation of a total of 134,344,895 shares of MPS (of which 10,219,550 shares due to the Asymmetric Option) and an overall net reduction of the Group's shareholders 'equity of EUR 943.8 mln attributable to the combined effect of a reduction in the Share capital of EUR 1,133.6 mln and an increase in "Reserves-other" of EUR 187.0 mln and in "Valuation reserves" of EUR 2.8 mln. For further details, please refer to the comment at the bottom of the statement of changes in shareholders 'equity in these consolidated financial statements.

The Remuneration Report published under the section Corporate Governance/ Governance Systems and Policies/ Remuneration Policies of the Group's website, Governance System and Policies, includes all the information required by art. 450 of the CRR regarding the remuneration policy and practices of the Group for those categories of staff whose professional activities have a material impact on its risk profile.

Appendix I schematically summarises the placement of the information published with reference to Part Eight of the CRR within this document and the reference to other documents.

1. Risk management objectives and policies

Executive Summary

Key Regulatory Metrics		
CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
12.13% *down -259 bp* *Dec-19: 14.72%*	12.13% *down -259 bp* *Dec-19: 14.72%*	15.75% *down -94 bp* *Dec-19: 16.69%*
Overall Capital Requirement		
CET 1 Ratio: 8.82%	*Tier 1 Ratio: 10.88%*	*Total Capital Ratio: 13.63%*
Total RWA	Credit Risk EAD	
€ 49.9 mld *down -14.8%* *Dec-19: € 58.6 mld*	€ 142.8 mld *up 8.8%* *Dec-19: € 131.2 mld*	
Minimun requirement of LCR	NSFR	Leverage Ratio
196.7% *up 29.1%* *Dec-19: 152.4%*	123.8% *up 9.9%* *Dec-19: 112.6%*	4.39% *down -172 bps* *Dec-19: 6.11%*
Net NPL Ratio	Coverage Ratio	
3.4% *Dec-19: 11.27%*	46.2% *Dec-19: 48.7%*	

The core objective of this disclosure is to provide a comprehensive description of the Montepaschi Group's risk profile as well as information on capital management and underlying risk drivers in addition to that already contained in the Annual Financial Report. The annual disclosure provides detailed information on the Montepaschi Group's capital adequacy (under Pillar I) and on the assessment of risk using Risk Management models. The Group manages its capital by ensuring that the capital base and correlated *ratios* are consistent with the risk profile assumed and compliant with regulatory requirements. The assessment of regulatory capital adequacy is based on the constant monitoring of own funds and risk weighted assets (RWAs) as well as on a comparison with the minimum regulatory requirements, including the additional requirements to be maintained over time and communicated to the Group following the SREP and the additional capital reserves introduced by the new regulatory framework. RWA and asset optimisation is achieved through the simultaneous monitoring the trend in volumes and changes in related risk metrics.

As of 31 December 2014, disclosure has been prepared on the basis of the harmonised regulatory framework for banks and investment firms contained in the CRR and CRDIV. As mentioned earlier, the two rules (hereinafter, the regulatory *framework*) implement within the EU the "Basel 3 *framework* which establishes more stringent criteria for the capital adequacy levels of banks.

Capital requirements – 2020

As a result of the conclusion of the SREP conducted with reference to the figures as at 31 December 2018 and taking into account the information received after that date, with the submission on 10 December 2019 of the 2019 SREP Decision, the ECB asked the Parent Company to maintain, effective on 1 January 2020, a consolidated TSCR level of 11%, which includes 8% as a minimum requirement for Own Funds pursuant to art. 92 of the CRR and 3% as Pillar II capital requirement, fully comprised of CET1.

With regard to Pillar II Capital Guidance, the ECB expects the Parent Company to adapt, on a consolidated basis, to a requirement of 1.3%, to be fully met with Common Equity Tier 1 capital in addition to the overall capital requirement (OCR). Failing to comply with this capital guidance is not the same as failure to comply with capital requirements.

In consideration of the potential impacts on the activities of significant banks linked to the spread of COVID-19, on 8 April 2020 the ECB communicated to the Parent Company the modification, effective from 12 March 2020, of the 2019 SREP Decision, with reference to the composition of the additional Pillar 2 capital requirement. In particular, the additional Pillar II capital requirement to be held in the form of CET1 must be met at least 56.25% by Common Equity Tier 1 (CET1) and at least 75% by Tier 1 Equity (Tier 1).

Lastly, it should be noted that from 1 January 2019 the Capital Conservation Buffer is 2.5%, and effective 1 January 2020 the Group is required to comply with the O-SII Buffer of 0.13% (0.19% from 1 January 2021 and 0.25% from 1 January 2022), as it has been identified for 2020 by the Bank of Italy as a systemically important institution authorised in Italy and 0.001% for the *Countercyclical Capital Buffer*. Accordingly, the Group must meet the following requirements at the consolidated level as at 31 December 2020.

Capital adequacy indicators **from 31 March 2020**	CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
Pillar I minimum Requirements (art. 92 CRR)	*4.50%*	*6.00%*	*8.00%*
TSCR (P1R+P2R)	6.19%	8.25%	11.00%
Combined Buffer Requirement (CBR)	*2.63%*	*2.63%*	*2.63%*
OCR (TSCR+CBR)	**8.82%**	**10.88%**	**13.63%**

It should be noted that on 28 December 2020, the ECB sent the 2020 SREP Decision to the Parent Company, which indicates the capital requirements to be met starting from 1 January 2021. Specifically, the MPS Group must meet a Total SREP Capital Requirement (TSCR) of 10.75% at consolidated level, which includes a minimum Pillar 1 requirement (“P1R”) of 8% (of which 4.50% in CET1 capital) and an additional Pillar 2 requirement (“P2R”) of 2.75% (compared to 3% of the 2019 SERP Decision), which must be satisfied with CET1 capital for at least 56.25% and with Tier 1 capital for at least 75%.

For further details, please refer to chapter 4 of this document.

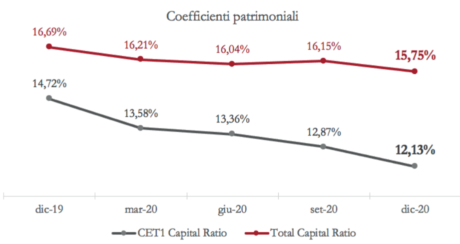
As of 31 December 2020, the Bank had a

CET1 ratio of 12.13%, higher than the minimum requirements set forth in Article 92 of the CRR and higher than the Total SREP Capital Requirement set by ECB and higher than the Overall Capital Requirement for 2020. It should also be noted that as of 31 December 2020 the Bank met the P2G requirement. Likewise, the Tier 1 ratio and the Total Capital Ratio are higher than the requirements established by Article 92 of the CRR, as shown below.

Capital adequacy indicators **as of 31 December 2020**	CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
Pillar I minimum Requirements (art. 92 CRR)	*4.50%*	*6.00%*	*8.00%*
TSCR (P1R+P2R)	6.19%	8.25%	11.00%
Combined Buffer Requirement (CBR)	*2.63%*	*2.63%*	*2.63%*
OCR (TSCR+CBR)	**8.82%**	**10.88%**	**13.63%**
Capital Ratios	**12.13%**	**12.13%**	**15.75%**

TSCR - Total SREP Capital requirement
P2R - Pillar 2 Requirement
CBR - Combined Buffer Requirement
OCR - Overall Capital Requirement

At the end of 2020, the Total Capital Ratio of 15.75%, registered a decrease of 94 bp compared to the end of 2019 (equal to 16.69%).



With regard to Pillar II Capital Guidance, as at 31 December 2020, the Tier 1 ratio was 5 basis points below the P2G level.

It is noted, however, that on 12 March 2020, the European Central Bank (ECB) issued a press release entitled "*ECB Banking Supervision provides temporary capital and operational relief in reaction to coronavirus*", in which, amongst other things, the ECB, as also clarified in the subsequently published FAQs, announced the possibility of temporarily operating below the capital level defined by *Pillar II Capital Guidance (P2G)*, the capital conservation *buffer* (CCB).

On 28 December 2020, the Parent Company received the final decision of the European Central Bank ("ECB") regarding the capital requirements that must be observed effective 1 January 2021, which includes a an additional Pillar 2 requirement (P2R) of 2.75% (compared to 3% of the SREP Decision 2020), the overall minimum requirement in terms of Total Capital ratio, CET1 ratio and Tier1 ratio is 13.44%, 8.74%, and 10.75%, respectively. As of 31 December 2020, the Montepaschi Group shows a positive buffer with regard to the minimum requirements established, including the P2G requirement, equal to 1.3%.

On 28 January 2021, the Parent Company approved the Capital Plan as required in the final decision of the ECB of 28 December 2020 regarding the SREP capital requirements. On 29 January 2021, the Parent Company sent the Capital Plan to the ECB, for its approval to the extent of its competence. Talks with both Authorities are ongoing. As per the press release of 17 December 2020, BMPS could be below the combined buffer requirement, affecting the Capital Conservation Buffer ("CCB"), starting from 31 March 2021 and until the date of completion of the capital strengthening transaction envisaged for 3Q21. In any case, the shortfall comes under the flexibility of use of the CCB made public by the ECB as part of the temporary capital relief.

In accordance with Article 92 of the CRR (Own funds requirements – Pillar 1), the MPS Group's capital requirements for 2020 and 2019 and related differences are summarized in the table below.

Own Funds and Capital Requirements Summary

Data in thousands of Euro

			Delta vs. 31-12-2019	
Own Funds	**dec-20**	**dec-19**	**Assolute**	**%**
Common Equity Tier 1	6,053,319	8,620,324	-2,567,005	-29.8%
Additional Tier 1	-	-	-	-
Tier 2	1,806,619	1,154,336	652,283	56.5%
Own Funds	**7,859,937**	**9,774,660**	**-1,914,723**	**-19.6%**
↳ *of which Delta EL**	*122,511*	*169,999*	*-47,488*	*-27.9%*
Requisiti di Capitale				
Rischio di Credito e Controparte	2,832,771	3,618,890	-786,119	-21.7%
↳ *of which Standard*	*1,156,123*	*1,340,481*	*-184,358*	*-13.8%*
↳ *of which AIRB*	*1,676,648*	*2,278,409*	*-601,761*	*-26.4%*
Rischio di Mercato	198,994	211,703	-12,709	-6.0%
↳ *of which Standard*	*198,994*	*211,703*	*-12,709*	*-6.0%*
↳ *of which Internal Model*	-	-	-	-
Rischio Operativo	925,251	825,620	99,631	12.1%
↳ *of which Foundation Approach*	*6,738*	*7,743*	*-1,005*	*-13.0%*
↳ *of which Standardised Approach*	-	-	-	-
↳ *of which Advanced Approach*	*918,513*	*817,877*	*100,637*	*12.3%*
CVA Risk	35,235	28,515	6,720	23.6%
Concentration Risk	-	-	-	-
Settlement Risk	-	-	-	-
Regulatory Capital Requirements	**3,992,250**	**4,684,728**	**-692,478**	**-14.8%**
Risk Weighted Assets	**49,903,123**	**58,559,094**	**-8,655,971**	**-14.8%**
of which Credit and Counterparty Risk	*35,409,632*	*45,236,121*	*-9,826,489*	*-21.7%*
of which Market Risk	*2,487,420*	*2,646,285*	*-158,865*	*-6.0%*
of which Operational Risk	*11,565,638*	*10,320,251*	*1,245,388*	*12.1%*
of which CVA Risk	*440,432*	*356,437*	*83,995*	*23.6%*

			Delta vs. 31-12-2019	
Coefficienti di capitale			**in bp**	**in %**
CET1 Capital Ratio	**12.13%**	**14.72%**	**-259**	**-2.59%**
Tier 1 Capital Ratio	**12.13%**	**14.72%**	**-259**	**-2.59%**
Total Capital Ratio	**15.75%**	**16.69%**	**-94**	**-0.94%**

**The value represents the total contribution of the Delta PA, understood as the sum of the positive and deductions, to the determination of the Own Funds under the Basel3 regulatory framework. The total amount of the Delta PA, prior to the application of the cap, amounts to 373,101 €/thousand (490,751 €/thousand as at December 2019).*

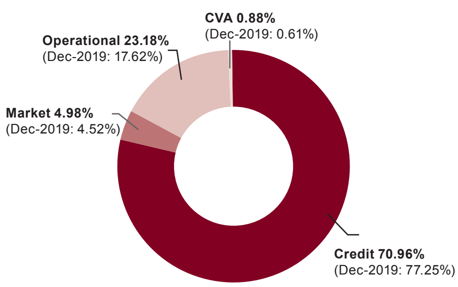
Compared to 31 December 2019, CET1 rose by a total of EUR -2,567 mln, essentially due to the following phenomena:

- the loss for the year of EUR 1.689 mln;
- decrease in share capital of EUR -1,134 mln (due to cancellation of shares) and increase in the item reserve for a total of EUR +184 mln (of which EUR +187 mln relating to the adjustment of the differences in the assets and costs incurred for the transaction, following the effective date of 1 December 2020 of the partial non-proportional demerger with asymmetric option of a set of non-performing loans by MPS in favour of AMCO);
- improvement in the balance of the *Other Comprehensive Income* Reserve, for EUR +141 mln;
- decrease in deductions associated with DTAs (EUR +198 mln), deductions associated with prudential filters (EUR +22 mln, primarily due to the prudent valuation), and deductions associated to intangible assets (EUR +104, mainly attributable to the application of the exemption from the CET1 deduction for software activities in accordance with EU Regulation 2020/2176 applicable from 23 December 2020), as well as the increase in deductions associated on securitisations (EUR -7 mln) and the increase in non-exempt deductions relating to significant financial investments (EUR -440 mln);
- decline in the neutralisation of the impact of IFRS 9 connected to the first-time adoption of the accounting standard as set forth in Regulation (EU) 2017/2935 (inclusive of the positive effect of the relative DTAs), equal to a total of EUR -95 mln attributable to the transition of the filter from 85% to 70%;
- sterilisation of the capital impacts associated with the increase in credit value adjustments recognised in the period as at 31 December 2020 with respect to 1 January 2020 for stage 1 and 2 portfolios as set forth in Regulation (EU) 2020/873. This Regulation calls for the reintroduction within CET1 of a progressively decreasing share of the effect of higher adjustments, equal to 100% in 2020: as at 31 December 2020, this positive effect amounts to EUR +192 mln;
- negative effect of EUR -44 mln deriving from the introduction of the prudential filter relating to the Other Comprehensive Income Reserve on government securities. This temporary treatment, applicable from 1 January 2020 to 31 December 2022, makes it possible to exclude from elements of CET1 the progressively decreasing amount (100% in 2020, 70% in 2021, and 40% in 2022) of unrealised profits and losses accumulated starting from 31 December 2019, accounted for in the financial statement item "Changes in the fair value of debt instruments measured at fair value through other comprehensive income", with reference to exposures to central administrations, provided such exposures are classified as performing financial assets.

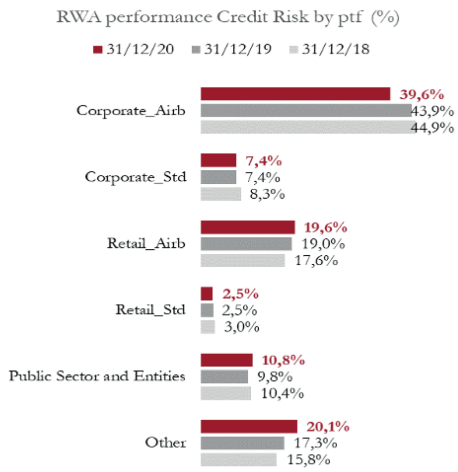
Tier 2 marked an increase of EUR 652 mln compared to the end of December 2019, due to the equivalent value of the issues of subordinated T2 bonds (EUR 400 mln nominal value concluded in January 2020 and EUR 300 mln nominal value concluded in September 2020) and the reduction in the contribution to Tier 2 of the excess value adjustments over expected losses (EUR -48 mln).

The Total Capital Ratio therefore reflects an overall decrease in own funds of EURO -1.915 mln. The RWAs recorded an overall decrease equal to 8,656 mln di euro. In particular, there was a reduction in RWAs relating to credit and counterparty risk (-9,826 mln di euro), determined by: i) the deconsolidation of the "Hydra M" portfolio on 1 December 2020, ii) the application of the modifications introduced by Regulation (EU) 2020/873 of 24 June 2020, particularly with reference to the calculation of the supporting factor relating to loans to SMEs, as well as iii) the effect of public guarantees on new disbursements and of the two synthetic securitisation transactions. There was also a reduction in RWAs relating to market risks (EUR -159 mln) which as of 31 December 2020 accounted for less than 5% (4.99%), and an increase in RWAs relating to CVA risk (EUR +84 mln) and operational risk (EUR +1,245 mln).

Breakdown of RWAs by risk type



The breakdown of RWAs by risk type is concentrated mainly on Credit Risk (71%) and are focused mainly on corporate exposures and retail exposures with AIRB. approach (39.6% and 19.6%).



The Liquidity Coverage Ratio (LCR), was 196.7% as at 31 December 2020, higher than the minimum regulatory requirement for 2020 (equal to 152.4%).

The Net Stable Funding Ratio (NSFR), was 123.8% as at 31 December 2019, slightly up since December 2019.

The Group also determined its overall internal Risk Appetite Framework (RAF) for 2020 also.

The objective of the RAF is to ensure alignment between the Group's actual *risk profile* and the *risk appetite* defined ex-ante by the Board of Directors, taking into account pre-established *risk tolerance* levels and in any event within the maximum admissible limits (*risk capacity*) deriving from regulatory requirements or other restrictions imposed by the Supervisory Authorities (e.g. the ECB's SREP Decisions).

The Annual RAF was formalized in a *Risk*

Appetite Statement (RAS) approved by the BoD and designed along a set of *Key Risk Indicators* (KRI) defined by Group, *Legal Entity* and *Business Units*, in accordance with the processes internally approved by the Board itself.

As regards the Group indicators, in 2020, the *Capital Adequacy, Liquidity Adequacy, Leverage, Asset Quality, Performance*, Internal Controls and Related Party indicators have been identified. Indicators for each category were increased, in particular for Liquidity, Asset Quality and *Performance*.

With specific regard to the Risk Appetite Framework (RAF) 2020, the Group promptly readjusted its analyses to come to a revision of the RAS in the second half of 2020 due to the emergence of COVID-19 as a global pandemic, which radically impacted the scenario on which the initial economic/asset projections were based. As part of the Group's RAS, the risk management and measurement systems allow for ongoing monitoring of the *risk profile* and periodic reporting to the Corporate Bodies with the activation of appropriate escalation mechanisms in the case of breach of the Tolerance or Capacity thresholds.

1.1 Risk Management Approach

Risk governance strategies are defined in line with the Group business model, medium-term Restructuring Plan objectives and external regulatory and legal requirements.

Policies relating to the assumption, management, coverage, monitoring and control of risks are defined by the Board of Directors of the Parent Company. Specifically, the Board of Directors periodically defines and approves strategic risk management guidelines and quantitatively expresses the Group's overall risk appetite, in accordance with both the annual Budget and multiannual projections.

The Parent Company's Board of Directors defines the overall *Risk Appetite Framework* (RAF) for the Group and approves the "*Group Risk Appetite Statement*" (RAS) at least once per year.

The RAS represents an essential element in defining the Group's risk strategy. As part of the RAS, risk objectives/restrictions are identified (that is, the Risk Appetite is cascaded down to Business Units/Legal Entities) in line with missions assigned to the Business Lines and the Legal Entities' Business Model. The process, approved by the Group's strategic supervision body, is expressed through and articulated system of *Key Risk Indicators* (KRI), which reflect the *Risk tolerance* in relation to the Group's *risk profile* within the maximum admissible limits (*risk capacity*) deriving from regulatory requirements or other restrictions imposed by the Supervisory Authorities. Subsequently, the Risk Appetite is then allocated, through specific mandates, to the CEO/GM, in terms of operating limits (*Risk Limits*) for various business segment and formalised with governance policies and management processes concerning various risks.

The RAS reflects the relation between the Parent Company and its subsidiaries, in terms of strategies and guidelines.

Equal attention is paid to the monitoring and controlling of transactions with related parties, which may have a significant impact on the Group's risk profile.

The *Risk Appetite* Process is structured so as to ensure consistency with the ICAAP and ILAAP as well as with Planning and Budget and Recovery processes, in terms of governance, roles, responsibilities, metrics, stress testing methods and monitoring of key risk indicators.

The overall internal capital and liquidity adequacy assessment takes place periodically as part of the strategic ICAAP (*Internal Capital Adequacy Assessment Process*) and ILAAP (*Internal Liquidity Adequacy Assessment Process*) process consisting mainly of:

- ICAAP/ILAAP *Outcomes*, or quantitative (*inherent risk*) and qualitative (*risk management and controls*) assessments on risk positioning prepared by the Risk Control function for the Board of Directors.
- *Capital/Liquidity Adequacy Statement*

(CAS/LAS), i.e. a summary declaration prepared by the Board of Directors where it expresses its vision and awareness regarding the management of the liquidity adequacy.

- ICAAP/ILAAP ongoing, which consists substantially of periodical analyses of liquidity adequacy which are described in reports to the corporate bodies.

Stress-test analyses are regularly conducted on various risk factors. Stress tests are used to assess the Group's capacity to absorb large potential losses in extreme market situations, so as to identify the measures necessary to reduce the risk profile and preserve assets as well as the liquidity position.

Following the postponement of the 2020 exercise, due to the COVID-19 pandemic, the EBA launched on 29 January 2021 the 2021 EU-wide stress test to assess the resilience of the European banking sector. MPS Group will participate in the exercise and the EBA expects to publish the results of the exercise by 31 July 2021.

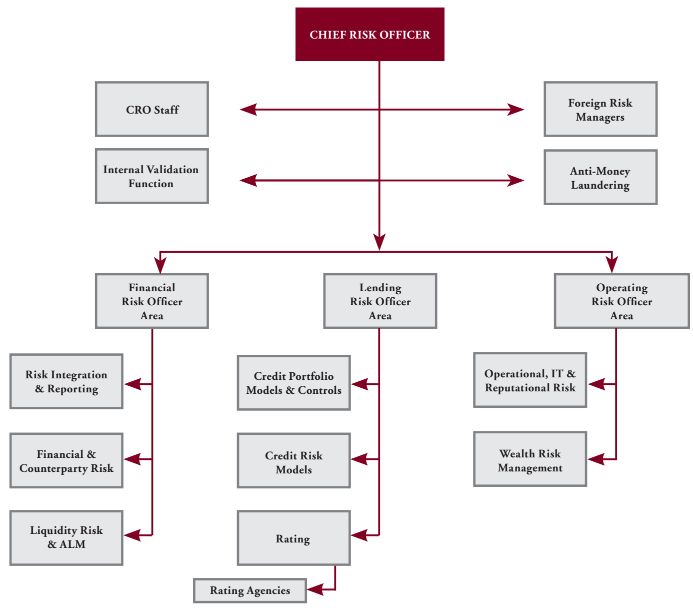
The Annual report on activities carried out concerning *Risk Management*, approved annually (by April 30th) by the Board of Directors, highlights checks carried out, findings and weaknesses that were found, suggesting any necessary corrective actions to be taken.

1.2 Risk Governance in the Montepaschi Group and organization of the Risk Management Function

The Chief Risk Officer (CRO) Department performs activities related to Risk Control, Anti-money laundering and Counter-terrorist financing (AML) and Internal Approval functions.

The Head of the Chief Risk Officer (CRO) Department, in addition to being responsible for the risk control function, has also been responsible for the AML function. Moreover, the Internal Validation function reports to the CRO, as set forth in the Supervisory regulations and as internally transposed in the Group policy regarding the internal control system. Risk Manager of the Parent Company's Foreign branch of Shangai as well as the Risk Manager of Monte Paschi Banque also report to the CRO. The Division's autonomy and independence are ensured as it reports directly to the Corporate Body (CdA), with strategic supervisory functions and only functionally to the Management Body (AD/DG). It has direct access to the Body with control functions (Collegio Sindacale) and may communicate continuously with no restriction or intermediation. The CRO is also entitled at his or her discretion to participate in Risk and Sustainability Committee meetings to intervene or propose discussions on specific topics. In particular, the Board of Directors appoints and removes the Chief Risk Officer, upon proposal by the Risk and Sustainability Committee, with the assistance of the Appointments Committee, having consulted the Board of Statutory Auditors.

The remuneration of the Parent Company's Chief Risk Officer is determined and approved by the Board of Directors upon proposal by the Remuneration Committee, having heard the opinion of the Risk Committee.



Specifically, within the Chief Risk Officer Department, the risk control function structures are:

the **Financial Risk Officer Area**, which defines the integrated methods of risk measurement/analysis and ensures they are constantly monitored, verifying their consistency with the *Risk Appetite Framework* and compliance with the thresholds defined in terms of adequacy with respect to capital (ICAAP - *Internal Capital Adequacy Assessment Process*) and liquidity reserves ILAAP - *Internal Liquidity Adequacy Assessment Process*), participating in the definition of any mitigating actions required. It participates in the preparation, drafting and monitoring of the Recovery Plan. It governs the development of the proprietary financial risk measurement and control system in line with internal and regulatory principles. It guarantees management *risk reporting* for the Corporate Bodies and the Top Management. Prepares the Public Disclosure (Pillar 3) and provides support for the preparation of otherexternal/institutional information (Financial Disclosure, Consob Prospectuses, Capital increase, Rating Companies, *Regulators*);

the **Lending Risk Officer Area**) governs the evolution of the credit risk measurement system, in line with internal and regulatory principles, in terms of statistical models as well as analytical and process assessments, overseeing the credit risk assessment from portfolio quality to the single name level. It conducts second-level controls on the Group's credit exposures. Develops and maintains internal models of credit risk expertise. It defines the rules and methodologies for determining each risk measure (estimation of the AIRB parameters, PD LGD, EAD, and the macroeconomic models applied to them for Accounting, RAF, ICAAP and Recovery Plan purposes);

the **Operating Risk Officer Area**, which governs the evolution of the risk measurement and control system correlated with the operational application of the Group's business model (including operational, reputational and customer portfolio risks).

Reports directly to the CRO:

- the **Internal Validation Function**, which constantly verify the reliability of the results obtained from the advanced risk measurements systems as well as their constant alignment with the company policies and the regulations of the Supervisory Authority;.
- the **AML – CFT Function**, which constantly verify that the company procedures are consistent with the objective of preventing and counteracting the violation of external regulations (laws and regulatory provisions) and self-governance regulations regarding money laundering and financing of terrorism.

The Risk Management Function, as responsible for second-level controls, is part of the general structure of the Group controls, internally governed by the Policy on Internal Control System, which define, a set of rules, procedures and organizational structures which ensure sound and fair business practices.

For a more thorough account of the Group's Internal Control System, Corporate Governance, as well as Risk Culture, please refer to the Corporate Governance Report available on the Group's website at: (https://www.gruppomps.it/corporate-governance/relazioni-corporate-governance.html)

Reference can also be made to this document on the subject of Risk Culture, to which the Risk Management Function contributes to increasing it not only through formulation of the Risk Appetite Statement (RAS) and its "cascading down" but also through initiatives regarding corporate bodies (board induction cycles on specific issues) and the personnel (online courses).

1.3 Risk Reporting Flows: main features

The Board of Directors:

- approves the guidelines and organisational framework on Integrated Risk Reporting (Risk Reporting Framework);
- ensures that an accurate, complete, effective and timely Risk Reporting system is set up;
- evaluates periodic management Risk Reporting for the Corporate Bodies and the Top Management;
- assesses and approves, at least on an annual basis, any modification or integration in the management Risk Reporting for the Corporate Bodies and the Top Management (content, format and frequency of the information) that allows them to fulfil their roles, relative to the risks the Group is or could be exposed to;
- ensures that management risk reporting for the Corporate Bodies and the Top Management supports decision-making by Top Management and that information is disseminated to support decision-making by employees in day-to-day activities and their impact on risks the Group assumes (Risk Culture promotion).

The Integrated Risk Reporting process is structured so as to ensure consistency with the strategic risk management processes (Risk Appetite, Gestione Operazioni Maggior Rilievo, ICAAP-ILAAP, Recovery Plan, Remuneration policies). The Integrated Risk Reporting regulates the ways in which risk information is represented to corporate bodies and functions with strategic, decision-making and control responsibilities, promoting the enhancement of the different levels of responsibility by fostering the effectiveness of decision-making and governance processes.

Risk Reporting can be divided in External Risk Reporting and External Risk Reporting, depending on the recipients.

The **External Risk Reporting** is prepared and addressed to parties external to the Group, such as *Supervisors*, Investors, analysts and rating agencies.

The Basel 3 Pillar 3 disclosure, as part of the External Risk Reporting, is governed by the Group's Regulation n.1 and a proper Group's Directive.

The **Internal Risk Reporting** is prepared and addressed so as to support the business management by the Corporate Bodies and Management (even if a possible forwarding to the Supervisors is envisaged), and is in turn divided into three levels:

- 1° level – Reporting to the Group's strategic supervision body; these reports communicate information in a concise manner, useful to verify, for instances, compliances with the RAS threhsolds – *Risk Appetite Statement* and *Recovery*, in line also with the ICAAP/ILAAP;
- 2° level – Reporting to the Parent Company's Management Body (CEO/GM) – including reporting to management committee – as well as

reporting to the bodies of the subsidiaries. The level of detail, greater than that of 1° level, is consistent with the purpose of supporting the direction, coordination and control of the Group's operational and risk management strategies, also in situations of crisis, within the risk appetite covered by the RAS;

- 3° level – Operational Reporting to Business Units and risk takers (of the Parent Company and its subsidiaries) for risk management purposes.

The first two levels jointly define the scope of Management Risk Reporting, while the third level defines the scope of Operational Risk Reporting.

The structure and contents of the Risk Reporting are periodically updated so as to meet the needs of direction, coordination and corporate governance.

1.4 Stress Test: scenarios and methodologies

The Group regularly conducts stress tests on *Risks-to-Capital and Risks-to-Liquidity*, put in place for both individual stand- alone risks and joint risks.

In terms of *Risk-to-Capital*, the Group adopts the *Capital Stress Test Framework* (CSTF), which is part of the Capital Adequacy Framework that analyses vulnerabilities in exceptional but plausible events.

The Capital Stress Test Framework consists in a set of methodological approaches and processes that evaluate exposure to various risks in situations of market turmoil or stress, for regulatory or management purposes.

With regard to the 2020 Group's Internal Capital Adequacy Assessment Processes (ICAAP) and Internal Liquidity Adequacy Assessment Process (ILAAP), the exercise took place after the emergence of the COVID-19 pandemic; the underlying current and prospective scenarios had such an impact as to be considered comparable to a systemic stress (as confirmed by the fact that the Authorities themselves have initiated exceptional procedures for the revision of regulatory instrument or their application), suitable as a stress scenario within ICAAP.

In terms of *Risk-to-Liquidity*, the Group adopts the Liquidity Stress Test Framework (LSTF), which is the part of the *Liquidity Risk Framework* that analyses vulnerabilities in the liquidity position across the different risk segments. The LSTF consists in a set of methodological approaches and processes that evaluate exposure to liquidity risk in situations of market turmoil or stress.

1.5 Risk Management strategies and policies

Each risk factor corresponds to a model that has been developed and is used internally for operational or regulatory purposes. For an account of strategies, processes and management models for the various risks, please refer to the paragraphs below.

From a regulatory standpoint, in accordance with the principles contained in the New accord on capital adequacy (Basel 2) in relation to First Pillar risks, the Montepaschi Group's internal credit and operational risk models were already authorised in the first half of 2008. Pursuant to circular letter 263/2006 of the bank of Italy, on 12 June 2008 the Montepaschi Group was officially authorised under regulation no. 647555 to use the advanced models for the measurement and management of credit risk (AIRB - *Advanced Internal Rating Based*) and operational risk (AMA – *Advanced Measurement Approach*) as of the first consolidated report at 30-06-2008.

Over time, these models have been further developed and their scope of application extended to Group entities not originally included in the initial scope of validation. As at 31-12-2020, the following portfolios/entities/parameters of the Montepaschi Group had been validated for regulatory purposes:

Credit Risk: regulatory treatment

Legal Entity	Corporate AIRB	Retail AIRB
Banca MPS	PD, LGD	PD, LGD
MPS CS	PD, LGD	PD, LGD
MPS L&F	PD, LGD	PD, LGD

To calculate capital requirements for Specialized Lending transactions of more than EUR 5 mln, the Group was authorised to adopt the "*Slotting Criteria*" AIRB method.

The Group has adopted the standard approach for the remaining credit risk exposures/entities for regulatory purposes.

Operational Risk: regulatory treatment

Legal Entity	AMA	BIA
Banca MPS	✓	-
MPS CS	✓	-
MPS L&F	✓	-
COGMPS	✓	-
Other Entity	-	✓

The Group has adopted the standard approach to calculate capital requirements relative to market risk.

Instead, capital requirements relating to counterparty risk are calculated using the current market value for OTC derivatives and long settlement transactions (LST) as well as the comprehensive method for securities financing transactions (SFT).

1.6 Corporate Governance

For a more thorough account of the Group's corporate governance structure and detailed information, please refer to the Corporate Governance Report available on the Group's website at:
(https://www.gruppomps.it/corporate-governance/relazioni-corporate-governance.html)

For further details on Risk Reporting Flows (Risk Reporting) to the Board of Directors and how the Board is involved in defining its content, please refer to previous section which describes the Group's Integrated Risk Reporting system.

1.7 Analysis of the Montepaschi Group's Internal Capital and Risk Integration Model

The Overall Internal Capitalis the minimum amount of capital resources required to cover economic losses resulting from unforeseen events caused by the simultaneous exposure to different types of risk.

All of the types of risk mentioned above are involved in quantifying the Overall Internal Capital, with the exception of liquidity and reputational risk that, instead, are mitigated through organisational policies and processes.

The Chief Risk Officer Division regularly quantifies the Group's Internal Capital for each type of risk and periodically reports these to the Risk Management Committee and to the Governing Bodies as part of the reporting flows.

The approach used to quantify and supplement the *risks-to-capital* to which the Group is exposed is known in the literature as Pillar 1 Plus. This approach envisages that the Pillar 1 requirements for Credit and Counterparty Risk, which already include those relating to Issuer Risk on the Banking Book, Equity Investment Risk, Real Estate Risk and Operational Risk, be increased by the requirements from internal models relating to Market Risks, both Trading Book and Banking Book, Banking Book Interest Rate Risk (Financial Risks), Concentration Risk and Business/Strategic Risk. Overall Internal Capital is calculated without considering inter-risk diversification, therefore by directly adding together the internal capital contributions of the individual risks. This approach aims to incorporate the indications in the SREP (*Supervisory Review and Evaluation Process*) Guidelines published by the EBA.

1.8 Credit Risk

The *Budgeting*, Planning, *Capital* and *Risk Management* processes of the Montepaschi Group are based on the "*Risk Adjusted Performance Management*" (RAPM) logic. In the development of these management processes, the definition of adequate credit policies – under the responsibility of the Parent company's Chief Risk Officer Division– plays a relevant role which finds its operational expression in the implementation of the strategies, in termini di credit portfolio quality objectives, to be applied to the credit processes.

The Montepaschi Group's strategies in risk management mainly aim at limiting the economic impact of default on the loan book, exploiting, in particular, the full potential of the internal rating models and loss given default estimates. Strategies are defined on a yearly basis, together with the definition of Risk Appetite, except as otherwise provided under exceptional circumstances due to external conditions.

It is possible identified for two main areas:

- loan disbursement strategies (definition of quality targets for access to credit);
- credit monitoring strategies (definition of minimum quality targets for maintenance of the loan disbursed).

The definition of customer acceptance *policies* plays a major role in loan disbursement strategies.

Only after having identified the customer with the required creditworthiness are other credit risk mitigation factors (guarantees) taken into account. Information on client quality and transaction risk is essential in identifying the decision-making body for loan granting.

The follow-up strategies are based on systems used on a daily/monthly basis to detect changes in the customer's risk profile. The identification of events likely to affect credit risk triggers a set of obligations for the distribution network, who is assigned the key task of keeping communication channels with the customer open and obtaining all useful information needed to verify the changes in the credit risk profile. If changes are confirmed, the client account manager is supported by personnel specialised in credit quality management and legal matter to define the credit risk management procedures required.

The quantitative identification of credit risk is mainly applied, at operational level, to the measurement of the risk-adjusted return of each individual operating unit. This process is carried out with operational control instruments. The credit risk identification and quantification instruments allow the Montepaschi Group to define hedging policies mainly consisting in defining "*risk-adjusted pricing*" which includes risk coverage and planned 'return on capital'.

Risk mitigation policies are defined as

part of the *Credit Risk Mitigation* (CRM) process, whereby the legal, operational and organisational conditions necessary to use collateral guarantees for credit risk-mitigation purposes are identified and met. Four sets of guarantees complying with mitigation requirements are defined in the process: Personal securities, Financial collaterals and mortgage collaterals and other collateral (cash deposits held by third parties and life insurance as a guarantee for the Bank). Other types of credit protection guarantees do not mitigate credit risk. With specific regard to collaterals, a system has been developed to monitor the value of the collateralised asset, based on the measurement of market value (daily for securities and annual for real estate).

Within the credit-granting process, the Montepaschi Group has adopted a *risk adjusted* system for borrower identification, which is sensitive to the customer's rating and to the presence of collaterals. Should the value of the collateralised asset be subject to market or foreign exchange rate risk, a "safety margin" is used, i.e. a percentage of the end-of-period value of the collateral pledged, which is a function of the volatility of the collateralised asset. The only portion of the loan covered by the value of the assets net of the differential is considered as guaranteed during the approval phase. In the monitoring stages, an adjustment is required on guarantees for which the market value results as being lower than the authorized value net of the safety margin; notification of this step is channeled into the implementation process of the credit monitoring strategies. For further insight into risk mitigation techniques, see Paragraph 5.5 below.

Credit Risk Management *policies* and disbursement processes are governed by specific Group directives. Credit risk analysis is performed internally for operational purposes using the Credit Portfolio Model, developed within the Parent Company, which produces detailed *outputs* in the form of traditional risk measures such as Expected and Unexpected Loss, both operational (intra-risk diversified with a time horizon of one year and a confidence interval calibrated to the target rating of the Group itself) and regulatory. There are several inputs: probability of default (PD), obtained through validated and non-validated models, LGD rates (operational and regulatory), number and types of guarantees supporting the individual credit facilities, regulatory and operational CCFs on the basis of which regulatory and operational EAD are estimated.

In accordance with the provisions of the Second Pillar of Basel 2, the Montepaschi Group is committed to the continuing development of methodologies and models in order to assess the impact on the loan book of stress conditions produced using *sensitivity* analyses with respect to individual risk factors or through scenario analyses.

Results from the analyses performed on

this category of risk are regularly included in the more general flow of risk reporting produced by the Chief Risk Officer Division and submitted to the Parent Company's Risk Committee, Top Management and Corporate Governing Bodies.

For further information, especially regarding the Internal AIRB Model, please refer to Paragraph 5.3.

1.9 Operational Risk

The Montepaschi Group has adopted an advanced management system for operational risk, with the aim of guaranteeing effective risk prevention and mitigation measures.

The risk management system consists in a structured process which identifies, assesses and monitors operational risks. This process is defined in the Group's Operational Risk Governance and Control Directive.

The operational risk management system adopted by the Group is divided into the following macro-processes:

- identification,
- measurement,
- monitoring,
- management and control,
- maintenance,
- internal validation,
- review.

Each process is clearly documented and is subject to the responsibility of a specific corporate function. The organizational units of the various Group subsidiaries are also involved in the processes.

Corporate policies and procedures assign the task of operational risk control to the Operating Risk Officer Area. As previously illustrated, the Operational, IT and Reputational Risks Service has been set up within this area and is responsible for:

- defining, developing and updating operational risk management and measurement systems;
- coordinating data collection and storage systems;
- the reporting system on operational risks;
- assessing the operational risk profile and measuring the relative capital adequacy requirements at both individual and consolidated levels;
- operational supervision of IT risk.

The management and measurement model designed and implemented by the Montepaschi Group incorporates the following four components:

- internal data on operational loss;
- external data on operational loss;
- factors regarding the operating context and the internal controls system;
- scenario analysis.

Classification of loss data adopts the event and *business line* model established by the Basel accord and adds further classifications such as, organisational unit, geographical area etc. The bank has defined a Loss Data Collection (LDC) process aimed at collecting and storing operational risk data used to calculate capital requirements and for management purposes.

The *Loss Data Collection* process has been designed to ensure that data is complete, reliable and up-to-date and, therefore, that the management and measurement system using it is effective.

As far as the external data on operational loss is concerned, the Montepaschi Group has opted for a strongly prudential approach. External data derives from the Italian Operational losses database (Italian: DIPO) consortium to which the

Montepaschi Group has belonged since its founding in 2003. The analysis of contextual and control factors enables the identification of the operational vulnerabilities to which the bank is potentially exposed. In order to provide greater granularity of analysis, which is carried out with the individual process *owners* through annual *self-assessments* of operational risk control, the identification of vulnerabilities is a prospective evaluation aimed at highlighting the difficulties inherent in *day-by-day* operations.

Lastly, the Montepaschi Group carries out scenario analyses for its Top management on a yearly basis: the analyses seek to identify the greatest vulnerabilities to which the Group is exposedon a *forward-looking* basis and integrate the quantitative information provided by the loss data in order to detect any changes in the organizational and business framework.

To ensure the correct application of this methodology and its compliance with current regulations, the operational risk internal validation process has been allocated to the Validation and Risk System Service. The quality of operational risk management and measurement systems is assessed on an ongoing basis as is their compliance with regulatory provisions, company needs and trends in the market of reference. Within this framework, it is also particularly important not only to verify the reliability of the methodology used in calculating capital adequacy, but also to ascertain the actual use of this system in decision-making processes as well as in the daily operational risk management systems. Furthermore, the Operating Risk Officer Area is in charge of producing reports on the operational risk measurement and control system, both for internal units and Supervisory authorities.

Each macro-process in which the system is structured produces its own report within a wider reporting framework. By defining a grid of contents, recipients and frequency of updates, the objective of this activity is to ensure timely horizontal and vertical communication of information on operational risks among the different corporate units concerned.

Results from the analyses performed on this category of risk are regularly included in the more general flow of risk reporting produced by the Chief Risk Officer Division and submitted to the Parent Company's Risk Management Committee, Top Management and Corporate Governing Bodies.

Corporate regulations allocate the activity of internal auditing to the Chief Audit Executive Division. This consists in periodic checks on the overall functioning of the Montepaschi Group's operational risk management and control systems, so as to achieve an independent, comprehensive adequacy assessment in terms of efficiency and effectiveness. Once a year, the Chief Audit Executive Division compiles a report updating the various company entities on the auditing activities carried out, specifically highlighting vulnerabilities identified, corrective measures proposed and related findings. For more insights on operational risk, see also the following Chapter 12.

1.10 Market Risk in the Trading Book

The Montepaschi Group's Regulatory Trading Portfolio (RTP), or Trading book, is made up of all the Trading books managed by the Parent bank (BMPS), MPS Capital Services (MPSCS). The portfolios of the other retail subsidiaries are immune to market risk since they only contain their own bonds held to service retail customers. Trading in derivatives, which are brokered on behalf of the same customers, also calls for risk to be centralised at, and managed by MPSCS.

Market risks in the trading book are monitored in terms of *Value-at-Risk* (VaR) for operational purposes. Market risk assumption, management and monitoring are governed group-wide by a specific resolution approved by the Board of Directors.

The Group's Finance and liquidity committee is responsible for directing and coordinating the overall process of managing the Group's proprietary finance thereby ensuring that the management strategies of the various *business units* are consistent.

Operating limits to trading activities are defined and set by the Parent company, in consistency with the Risk Appetite, and are expressed by level of VaR delegated authority, which is diversified by risk factors and portfolios, in terms of monthly and annual Stop loss and stress. The limits are monitored on a daily basis.

In addition to being included in VaR computations and in respective limits for the *credit spread risk* component, *Trading book* credit risk is also subject to specific operating limits of issuer and bond concentration risk, which specify the maximum notional amounts by type of guarantor and rating class on all investments in debt securities (bonds and *credit derivatives*).

Referring to the Parent Company specifically, the business area entrusted with trading activities is the Finance, Treasury and Capital Management Area (FTCMA). Trading activities for MPSCS are performed by the Global Markets Division.

The Business Units manage a proprietary portfolio which takes trading positions on interest rates, credit, shares, indices, commodities and foreign exchanges. In general, interest rate positions are taken by purchasing or selling bonds, and by creating positions in listed derivatives (futures) and OTCs (IRS, swap options). Trading is carried out exclusively on the Bank's own behalf, with objectives of absolute return, in compliance with the delegated limits of monthly and yearly VaR and *Stop Loss*.

With regard to credit risk in the trading book, the equity positions are generally managed through the purchase or sale of bonds issued by companies or by creating synthetic positions in derivatives. The activity is oriented to achieving a long or short position on individual issuers, or a long or short exposure on specific commodities. The activity is carried out solely on the Bank's own behalf with objectives of absolute return.

The Montepaschi Group's Trading Book is subject to daily monitoring and reporting by the Parent Company's Financial Risk Officer Area on the basis of proprietary systems. VaR for management purposes is calculated separately from the operating units, using the internal risk measurement model implemented by the Risk Management function in keeping with international *best practices*. However, the Group uses the standardised methodology in the area of market risks solely for reporting purposes.

Results from the analyses performed on this category of risk are regularly included in the more general flow of risk reporting produced by the Chief Risk Officer Division and submitted to the Parent Company's Risk Management Committee, Top Management and Corporate Governing Bodies.

For further quantitative details on market risk, please refer to Chapter 7.

1.11 Counterparty Risk

Counterparty risk is a specific kind of credit risk and is linked to potential losses due to the default of counterparties in financial transactions prior to settlement and is associated with financial instruments which have a positive value at the time of counterparty's default. The financial instruments which point to this kind of risk:

- generate an exposure that is equal to their positive fair value;
- have a market value which evolves over time depending on underlying market variables;
- generate an exchange of payments or an exchange of financial instruments or goods against payment.

The prudential treatment of counterparty risk is applied to the following types of financial instruments:

- credit and financial derivative instruments traded;
- *Securities Financing Transactions* (SFTs), such as: repos and reverse repos on securities or commodities, securities or commodities lending or borrowing transactions and borrowing on margin;
- *Long Settlement Transactions* (LSTs), such as: forward transactions in which a counterparty commits to delivering (receiving) a security, commodity or foreign currency against receipt (delivery) of cash payment, other financial instruments or goods with settlement upon a pre-established contractual date, later than the one determined by market practice for these types of transaction.

The scope of measurement for counterparty risk includes all banks and subsidiaries belonging to the Group with respect to positions held regardless of the portfolio to which they are allocated (both the Banking Book and Trading Book for supervisory purposes are subject to capital requirements for counterparty risk). As referred to in the

Supervisory regulations, when measuring exposure to counterparty risk, the Montepaschi Group adopts the regulatory market value method to determine the *Exposure at Default* (EAD) for *OTC*, *Exchange Traded Derivatives* (ETD) and LST transactions and the comprehensive approach to calculate EAD for SFT transactions.

In accordance with the Risk Appetite Framework, the Parent Company has defined annually and approved operational limits for counterparty credit exposures in terms of EAD for OTC derivatives and SFTs transactions. Such limits are expressed by level of delegated authority and subject to daily monitoring. Results from the analyses performed on this category of risk are regularly included in the more general flow of risk reporting produced by the Chief Risk Officer Division and submitted to the Parent Company's Risk Committee, Top Management and Corporate Governing Bodies.

For further quantitative details on counterparty risk and related management processes, please refer to Chapter 6.

1.12 Interest Rate Risk in the Banking Book

The *Banking Book* consists of all exposures not included in the Trading Book and, in accordance with international *best practices*, identifies the set of the Group's commercial trades connected to the transformation of maturities in the assets and liabilities and ALM financial activities (treasury and risk hedging derivatives).

The strategic *Banking Book* rate risk choices are defined periodically in the *IRRBB Strategy* document approved by the Board of Directors and made operational within the Group's Finance and Liquidity Committee; these choices are based on interest rate risk measures expressed in terms of changes in economic value as well as interest margin.

For further details on the methodologies developed in relation to the interest rate risk in the banking Book (*Banking Book* ALM) and related quantitative findings, please refer to Chapter 8.

1.13 Liquidity Risk

The Group has used a **Liquidity Risk Framework** for many years now, intended as the set of tools, methodologies, organisational and *governance* setups which ensures both *compliance* with national and international regulations and adequate liquidity risk governance in the short (Operating Liquidity) and medium/long term (Structural Liquidity), under business-as-usual and stress conditions.

The reference Liquidity Risk model for the Montepaschi Group is "centralised" and calls for the management of short-term liquidity reserves and medium/long-term financial balance at Parent Company level, guaranteeing solvency on a consolidated and individual basis for the Subsidiaries.

The internal assessment of liquidity adequacy (*Internal Liquidity Adequacy Statement* - ILAAP) is a process that is part of the more general Risk Management macro-process, in direct connection with the *Risk Appetite Framework* (RAF) through the annual formulation of the *Risk Appetite Statement* (RAS).

Liquidity Risk Management

Management of the Group's **Operating Liquidity** is intended to ensure the Group is in a position to meet cash payment obligations in the short term. The essential condition for a normal course of business in banking is the maintenance of a sustainable imbalance between cash inflows and outflows in the short term. The benchmark metric in this respect is the difference between net cumulative cash flows and *Counterbalancing Capacity*, that is to say, the reserve of liquidity in response to stress conditions over a short time horizon in addition to the *Liquidity Coverage Ratio* (LCR) regulatory measure - Delegated Act. From the extremely short-term perspective, the Group adopts a system for the analysis and monitoring of *Intraday* liquidity, with the goal of ensuring normal development during the day of the bank's treasury and its capacity to meet its intraday payment commitments.

Management of the Group's **Structural Liquidity** is intended to ensure the structural financial balance by maturity buckets over a time horizon of more than one year, both at Group and individual company level. Maintenance of an adequate dynamic ratio between medium/long term assets and liabilities is aimed at preventing current and prospective short-term funding sources from being under pressure. The benchmark metrics include *gap ratios* which measure both the ratio of total funding and loans over more-than-1-year and more-than-5-year maturity deposits and the ratio of funding and loans to retail/corporate deposits in addition to the regulatory measurement of the *Net Stable Funding Ratio* (NSFR) in accordance with the BCBS definition.

As of 31 December 2020, the medium/long-term liquidity indicator, the Net Stable Funding Ratio (NSFR), was above the regulatory requirement of 100%.

The Group defined and formalised the asset encumbrance management and monitoring framework with the goal of analysing:

- the overall degree of encumbrance of total assets;
- the existence of a sufficient quantity of assets that may be encumbered but which are free;
- the Group's capacity to transform bank assets into *eligible* assets (or in an equivalent manner, to encumber *non-eligible* assets in bilateral transactions);

and the monitoring framework of the Concentration Risk, with the goal of analysing:

- the concentration of the funding sources, by counterparty and by type of channel;
- the concentration of the assets composing the liquidity reserves of the Group.

The liquidity position is monitored under business-as-usual conditions and under specific, system-wide and/or combined **stress scenarios** (with *adverse* and *extreme* intensity) according to the *Liquidity Stress Test Framework*. The exercises have the objective of:

- timely reporting the Group's major vulnerabilities in exposure to liquidity risk
- to calculate the survival time frame of the Group under stress conditions;
- allowing for prudential determination of the required levels to be applied to the Liquidity Risk measurement metrics within the scope of the annual Risk Appetite Statement.

As part of Risk Appetite Framework, the Liquidity Risk Framework identifies the tolerance thresholds for liquidity risk, that is to say the maximum risk exposure deemed sustainable in a business-as-usual scenario. The short/medium and long-term liquidity risk limits derive from the setting of these risk appetite thresholds.

The system of operating limits, known as *Liquidity Risk Limits*, is defined so as to make it possible to promptly identify approaches towards the risk *tolerance* threshold defined in the annual *Risk Appetite Statement process.*

In order to immediately identify the emergence of vulnerabilities in the Liquidity position, the Group has developed a range of *Early Warnings*, classified as generic or specific depending on whether the individual indicator is designed to detect potential vulnerabilities in the overall economic context of reference or in the Group structure.

Group's Liquidity Management

Operating and structural liquidity management is governed by the Parent Company's Liquidity Management Department, which is responsible for defining and implementing *funding* strategies in the short and medium/long-term.

With reference to the management of operating liquidity, Liquidity Management manages the Group's "liquidity reserves" so as to guarantee the Bank's capacity to deal with expected and unexpected outflows, to that end making recourse to various interbank market instruments (*unsecured* deposits, collateralised deposits, repos) as well as transactions with the Central Bank.

With regard to the management of structural liquidity, Liquidity Management pursues the objectives laid out in detail in the annual *Funding Plan* which outlines the medium/long-term strategies defined on an operational basis in the "*Liquidity and Funding Strategy*". The Group's *Liquidity and Funding Strategy* defines the funding activity guidelines of the BMPS Group in terms of risk appetite, with a three-year time horizon, in compliance with the long-term *Risk Tolerance* thresholds on operating and structural liquidity indicators, internal and regulatory, defined within the Group's Risk Appetite Statement (RAS).

In addition, to complete the Funding Plan, Liquidity Management prepares the ***Contingency Funding Plan***, which represents the operational tool for liquidity risk management intended to define intervention strategies in the case of extreme liquidity tensions, laying out procedures and actions that may be promptly activated to obtain sources of funds in emergencies. The strategies to be applied are defined on a case by case basis by the Management Committee at its Liquidity Stress/Crisis session considering the type, duration and intensity of the crisis and the reference context when the crisis takes place.

1.14 Equity Investment Portfolio Risk

Equity Investment risk is defined as the risk of incurring potential losses deriving from fluctuations in the value of Equity investments in light of changed macroeconomic and market scenarios and/or the continuation of situations of capital, income and/or financial imbalance.

To calculate Internal Capital against such risk, Montepaschi Group has adopted the standardised approach, in line with the methodological *framework* for estimating Internal Capital. This approach requires that exposures in equity instruments be assigned a risk weight of 100 % or 150% for particularly high-risk positions, unless they are to be deducted from Own Funds.

According to the current supervisory rules (CRD5/CRR2), these mechanisms also include non-significant investments in financial sector entities within the scope of deductions (<10%) and including indirect and synthetic investments along with direct investments. The regulations also provide for exemptions from deduction. For non-significant investments in CET1 instruments, AT1 instruments and T2 instruments in other financial sector entities, the amount deducted is calculated by comparing the total aggregate with the exemption, which is then divided in proportion to the weight % of each type of investment on the total class of instruments and the amount of the exemption is weighted at 100% or 150% if high risk. For significant investments (>10%) in other financial sector entities, the regulations provide for a double exemption (together with temporary non-convertible DTAs) in the calculation of the deducted amount and a risk weight of 250% of the amount not deducted.

The Internal Capital is quantified by the Financial Risk Officer Area of the Parent Company.

Results from the analyses performed on this category of risk are regularly included in the more general flow of risk reporting produced by the Chief Risk Officer Division and submitted to the Parent Company's Risk Management Committee, Top Management and Corporate Governing Bodies.

For further accounting details on risk in the Equity Investments Portfolio, please refer to Chapter 9.

1.15 Strategic Risk

Business /Strategic Risk is defined as the current and/or prospective risk of unexpected losses due to high business volatility (business risk), adverse strategic decisions and/or poor responsiveness to changes in the competitive environment (strategic risk).

A *Value/Earnings-at-Risk* model is used to determine the internal capital requirement against Business/Strategic Risk based on an "*earnings volatility*" evaluation.

The model adopted estimates the *business margin's* historical volatility, or *"earnings volatility*", calculated for the Group and the main Legal Entities, taking into account the following income statement items: net interest income, net fees & commissions, other administrative expenses, personnel costs.

Internal Capital is quantified by the Financial Risk Officer Area of the Parent company.

1.16 Real Estate Risk

Real Estate Risk is defined as the risk of incurring potential losses from unexpected changes in the value of the real estate portfolio as a result of real estate market performance in general as well as and inadequate property management and/or maintenance.

As part of its operations, the Group is exposed to risk in the real estate sector, both as a result of investments directly held in owned properties and, in the context of lending activities, as a result of loans granted to companies operating in the real estate sector, whose cash flows are mainly generated by the rental or sale of properties (known as commercial real estate), as well as from the activity of granting loans to private individuals backed by real estate collateral. Internal Capital for Real Estate Risk is represented by regulatory capital.

The Internal Capital is quantified by the Financial Risk Officer Area of the Parent company.

1.17 Risk inherent in investment products/services

The Group pays particular attention to the governance of risks regarding investment services are directly or indirectly reflective of the risks incurred by customers in the provision of investment services and activities.

The governance of these risks is aimed at protecting customers and preventing any potential repercussions on the Group in terms of operational and reputational risk.

Organisational responsibility at Group level for supervising financial risk measurement, monitoring and control activities and for mapping investment products/services for the purposes of MiFID adequacy is an integral part of the Group's integrated risk management responsibilities and is centralized to the Wealth Risk Management Service within the Parent Company's Chief Risk Officer Division. This is to ensure centralised governance of the direct and indirect risks which the Group incurs during the course of its operations.

Wealth risk management focuses on the comprehensive set of operational and management processes as well as measurement and monitoring tools/methods used to ensure overall consistency between customers' risk profiles and the risk of investment products and portfolios offered to -or in any case held by- customers.

In addition, in the more general context of Product Governance of financial products for customers, the wealth risk management activity envisages the oversight of certain specific aspects, such as product testing, review, and product monitoring.

Through its responses to the MiFID profiling questionnaire, the Customer provides the Bank with information on their particular characteristics and needs (including their knowledge, experience, investment objective and time horizon), which helps determine the customer's general risk profile.

The investment products (of the Group and of third parties), whether or not included in the overall offering to the Group's customers, are mapped for risk on the basis of quantitative measurements of market and credit risk factors; liquidity and complexity assessments are also conducted on these products. Product mapping is one of the guiding criteria for carrying out investment adequacy checks as part of the consulting service offered.

For the sake of simplicity, investment product risk mapping, performed with reference to individual risk macro-factors, is grouped under specific risk categories.

A special focus is given by the Bank to the monitoring and prevention of potential financial and reputational risks which investment services, particularly within the context of financial crisis, may generate as a consequence of increased market volatility. The fast-moving and not always predictable market trends may result in rapid changes in product risks and generate potential financial losses, as well as prompting a changing attitude by customers towards their own financial investments.

Customers are regularly informed of changes in the risk of financial instruments held, so as to ensure timely informational transparency and facilitate possible decisions aimed at rebalancing the risk profile of their investments.

The strategic choice of the Banca MPS is to combine the placement of financial products with advisory so as to ensure the highest level of protection for the investor and, at the same time, enhance the role played by relationship managers. Again, with a view to protecting customers, the obligation to verify appropriateness has also been extended to the trading activities on the secondary market of the certificates issued by the Group.

Banca MPS offers two types of advisory services:

- "Basic" advisory is aimed at verifying the suitability of the individual investments recommended in relation to the risk of the customer's investment portfolio as a whole. As part of this, the adequacy model adopts a multivariate control logic on the individual risk factors, based on the customer's portfolio risk, including the investment product that is being recommended;
- "advanced" advisory, aimed at verifying the suitability of the overall set of transactions recommended, in relation to a set of investment/disinvestment transactions aimed at building one or more advanced advisory portfolios, in accordance with the respective investment objectives, with regard to optimum *asset allocation* to maximise prospective returns, with respect to the risk of the customer's investment profile as a whole. In this regard, the adequacy model adopts a multivariate control approach to the individual risk factors, taking the risk of the customer's portfolio, including the recommended investment product(s), as a reference.

Wealth risk management activities cover the entire distribution scope of the branch network of MPS Group and investment services operated by Banca Widiba and MPS Capital Services.

1.18 Reputational Risk

Reputational risk can be defined as the current and potential risk of a decline in earnings, capital or liquidity resulting from a negative perception of the bank's image by its customers, counterparties, shareholders, investors, and regulators. This is a "second level" risk, which triggers on other types of risk typical of banking activities, mainly operational, strategic, legal and *compliance* risks, or which is generated by external events, negative news on the bank or on the sector banking or an inappropriate management of external communications.

The Group has a Code of Ethics which points out the references and guiding principles which must guide expected conduct, consistently and in continuity with its core values: the ethics of responsibility, customer focus, attention to change, a pro-active and entrepreneurial approach, a passion for professional know-how, team spirit and cooperation.

The governance model for the Group's Reputational Risks, consistent with the overall risk governance process, assigns the strategic supervisory function to the Board of Directors and responsibility for governing the Reputational Risk processes to the CRO Division.

The Reputational Risk is managed by a specific *framework* aimed at monitoring, safeguarding, and consolidating the relationship with all *stakeholders*. The *framework* devotes attention to sustainability and it is based on institution-wide risk culture, management the Group's reputation and primary risks (credit risk, operational risk, market risk, legal risk, risk of investment products, strategic risk, and *compliance*), the development of organizational and communication controls.

It provides for ordinary management, aimed at overseeing and increasing reputation in the day-to-day activities and extraordinary management, in the event of a reputational crisis, aimed at minimizing reputational damage through extraordinary and timely response to events.

Each business Function with reference to the activities for which it is responsible, given the pervasive and transversal nature of this risk, is involved in the process of protecting the image and safeguarding the corporate reputation, for the purpose of identifying reputational risks and related organizational controls.

In the event of new product launches, commercial initiatives and any unilateral actions, preliminary assessments are conducted to mitigate this risk and no business activities are financed that are not consistent with the socio-ethical-environmental objectives of the Code of Ethics.

Specific processes are provided for managing internal and external communication and structured authorization processes that certify the quality and accuracy of information to the outside according to their nature and relevance.

In the event of a reputational crisis (extraordinary management), an *escalation* process is envisaged so as to contain the impacts and to quickly manage the messages to be conveyed externally and internally to all *stakeholders*.

The *framework* includes reputational indicators that "measure" the strength of the relationship with the main *stakeholders* (customers, employees, Institutions/ communities, regulators, and shareholders/ investors), and are monitored periodically. Internal climate *surveys* among employees as well as external *surveys* between customers and non-customers are used to monitor the level of satisfaction of the services provided to customers, the perception of the Group's image, and the sentiment expressed in the online media. Some of these indicators are included in the RAS 2020 and are monitored on a quarterly basis.

Since the risks, as well as the tools to identify and monitor them, are constantly evolving, the Group is active in promoting the spread of risk culture within the institution through specific training courses for employees designed on the main banking risks.

2. Scope of application

The disclosure contained in this document (disclosure to the Public) refers solely to the Monte dei Paschi di Siena "Banking Group" as defined by Supervisory provisions. The "prudential" scope of consolidation is determined according to prudential regulations and differs from the scope of the consolidated financial statements, determined under IAS/IFRS. For the calculation of regulatory capital and prudential requirements it identifies the prudential scope of consolidation and this can create mismatches between the data disclosed in this document and that included in the Consolidated Financial Statements.

These differences are mainly attributable to:

- consolidation, using the line-by-line method in the IAS/IFRS financial statements of companies not included in the Register of Banking Groups and consolidation with the equity method for prudential supervision;
- consolidation with the equity method in the IAS/IFRS financial statements of the company Integra S.p.A. operating in financial assets and jointly controlled. The company is proportionately consolidated in prudential supervision.

It should be further noted that there are no non-consolidated companies within the Montepaschi Group.

No restrictions or other impediments exist that may prevent a prompt transfer of regulatory capital or funds within the Group.

The following table reports all entities included in the scope of consolidation as at 31 December 2020.

Tab. 2.1 – Scope of application as of 31 December 2020 (EU LI3)

							Treatment for Supervisory Purposes			
	Registered Office	Sector	Shareholding %	Type of relationship (a)	Voting rights % (b)	Treatment in the Balance Sheet	Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted
BANCA MONTE DEI PASCHI DI SIENA S.p.a.	Siena	Banking				Full	x			
MPS LEASING E FACTORING S.p.a.	Siena	Leasing and factoring	100.00	1	100.00	Full	x			
MONTE PASCHI BANQUE S.A.	Parigi	Banking	100.00	1	100.00	Full	x			
MPS CAPITAL SERVICES - BANCA PER LE IMPRESE S.p.a	Firenze	Banking	100.00	1	100.00	Full	x			
WISE DIALOG BANK S.p.a. - WIDIBA	Milano	Banking	100.00	1	100.00	Full	x			
MONTE PASCHI FIDUCIARIA S.p.a	Siena	Trust company	100.00	1	100.00	Full	x			
INTEGRA S.p.a	Firenze	Consumer credit	50.00	7	50.00	Consolidate at Equity		x		
MPS TENIMENTI POGGIO BONELLI e CHIGI SARACINI SOCIETA' AGRICOLA S.p.a	Siena	Wine industry	100.00	1	100.00	Full			x	
MONTE PASCHI CONSEIL FRANCE SOCIETE PAR ACTIONS SEMPLIFIEE	Parigi	Financial intermediary	100.00	1	100.00	Full	x			
CIRENE FINANCE S.r.l	Conegliano	Special purpose vehicle	60.00	1	60.00	Full	x			
MAGAZZINI GENERALI FIDUCIARI MANTOVA S.p.a	Mantova	Deposit and custody warehouses (for third parties)	100.00	1	100.00	Full	x			
CONSORZIO OPERATIVO GRUPPO MPS S.c.p.a.	Siena	IT and Information services	99.91	1	99.91	Full	x			
MPS COVERED BOND S.r.l	Conegliano	Special purpose vehicle	90.00	1	90.00	Full	x			
MPS COVERED BOND 2 S.r.l	Conegliano	Special purpose vehicle	90.00	1	90.00	Full	x			
G.IMM.ASTOR S.r.l	Lecce	Real estate renting	52.00	1	52.00	Full	x			
IMMOBILIARE VICTOR HUGO S.C.I.	Parigi	Real estate	100.00	1	100.00	Full	x			
AIACE REOCO S.r.l.	Siena	Real estate	100.00	1	100.00	Full	x			
ENEA REOCO S.r.l.	Siena	Real estate	100.00	1	100.00	Full	x			
SIENA MORTGAGES 07-5 S.p.a.	Conegliano	Special purpose vehicle	7.00	4	7.00	Full	x			
SIENA MORTGAGES 09-6 S.r.l.	Conegliano	Special purpose vehicle	7.00	4	7.00	Full	x			
SIENA MORTGAGES 10-7 S.r.l.	Conegliano	Special purpose vehicle	7.00	4	7.00	Full	x			
SIENA LEASE 2016 2 S.r.l.	Conegliano	Special purpose vehicle	10.00	4	10.00	Full	x			
SIENA PMI 2016 S.r.l.	Conegliano	Special purpose vehicle	10.00	4	10.00	Full	x			

(a) Type of relationship:
1 majority of voting rights at ordinary shareholders' meetings
2 dominant influence at ordinary shareholders' meetings
3 agreements with other shareholders
4 other forms of control
5 unified management under art. 26.1 of Decree 87/92
6 unified management under art. 26.2 of Decree 87/92
7 joint control

(b) Actual voting rights in ordinary shareholders' meetings.

Tab. 2.2 – (EU LI1) – Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories

			Carrying values of items				
Assets	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
10. Cash and cash equivalent	763,777	30,825,690	30,825,690				
20. Financial assets designated at fair value through profit or loss	8,675,949	8,675,949	143,164	2,967,757	-	8,211,410	321,375
a) Financial assets held for trading	8,214,902	8,214,902		2,967,757		8,211,410	3,491
of which derivatives	*2,967,757*	*2,967,757*		*2,967,757*		*2,967,757*	
of which Equity instruments	*90,923*	*90,923*					
of which Debt securities	*5,156,221*	*5,156,221*					
of which Loans and advances	-	-					
b) Other financial assets mandatorily measured at fair value	*461,047*	*461,047*	*143,164*	-	-	-	*317,883*
of which Equity instruments	*165,498*	*165,498*					
of which Debt securities	*152,385*	*152,385*					
of which Loans and advances	*143,164*	*143,164*	*143,164*				
30. Financial assets at fair value through other comprehensive income	5,777,926	5,777,926	5,535,365				
of which Equity instruments	*242,560*	*242,560*					
of which Debt securities	*5,535,365*	*5,535,365*	*5,535,365*				
of which Loans and advances	-	-					
40. Financial assets at amortized cost	126,739,731	96,688,324	96,625,923	9,512,674	-	-	62,401
of which Loans to banks	*34,737,909*	*4,675,995*	*4,675,995*	*895,557*			
of which Loans to customers	*92,001,823*	*92,012,329*	*91,949,928*	*8,617,117*			*62,401*
50. Hedging derivatives	50,818	50,818		50,818			
60. Change in value of macro-hedged financial assets (+/-)	1,032,483	1,032,483	1,032,483				
70. Equity investments	1,107,463	1,161,769	613,635				548,134
90. Property, plant and equipment	2,338,834	2,270,081	2,270,081				
100. Intangible assets	183,945	183,928					183,928
110. Tax assets	1,986,164	1,985,119	1,806,694				178,425
120. Non-current assets and groups of assets held for sale and discontinued operations	102,893	102,893	102,893				
130. Other assets	1,596,118	1,624,257	1,624,257				
Total assets	**150,356,103**	**150,379,238**	**140,580,186**	**12,531,249**	-	**8,211,410**	**1,294,262**
Liabilities							
10. Financial liabilities measured at amortized cost	131,943,995	131,969,113	-	12,761,085	-	-	119,208,029
of which due to banks	*28,418,072*	*29,209,420*		*3,252,718*			*25,956,701*
of which due to customers	*90,683,669*	*89,917,440*		*9,508,366*			*80,409,073*
of which Securities issued	*12,842,254*	*12,842,254*					*12,842,254*
20. Financial liabilities held for trading	6,002,020	6,002,020		1,456,522		6,002,020	
of which derivatives	*1,456,522*	*1,456,522*		*1,456,522*			
30. Financial liabilities designated at fair value through profit or loss	193,332	193,332					193,332
40. Hedging derivatives	1,797,049	1,797,049		1,797,049			
50. Change in value of macro-hedged financial liabilities (+/-)	45,428	45,428					45,428
60. Tax liabilities	4,091	2,543	2,543				
70. Liabilities included in disposal groups classified as held for sale	-	-					-
80/90 Other liabilities and TFR	2,693,599	2,526,743					2,526,743
100. Provisions for risks and charges	1,892,607	2,059,027					2,059,027
120. Valuation reserves	260,853	260,853					260,853
150. Reserves	-1,670,500	-1,670,500					-1,670,500
170. Share capital	9,195,012	9,195,012					9,195,012
180. Treasury shares (-)	-313,710	-313,710					-313,710
190. Minority shareholders' equity (+/-)	1,310	1,310					1,310
200. Profit (Loss) for the period (+/-)	-1,688,984	-1,688,984					-1,688,984
Total liabilities	**150,356,103**	**150,379,238**	**2,543**	**16,014,656**	-	**6,002,020**	**129,816,539**

3. Own Funds

Own funds, an element of Pillar 1, are calculated according to Basel 3 rules implemented in Europe through a comprehensive body of regulations, consisting of the Capital Requirements Regulation (CRR), European Regulation no. 575/2013, as amended by Regulation (EU) 2019/876 – also known as CRR II, and related integrations, by the Capital Requirements Directive (CRD IV), by Regulatory Technical Standards and Implementing Technical Standards, and by supervisory instructions issued by Bank of Italy (specifically, Circular nos. 285 and 286).

Own funds calculation is not only subject to the transitional period for the introduction of the "Basel 3" regulatory *framework*, which moreover expired on 31 December 2017 but also to the transitional provisions introduced by Regulation (EU) 2017/2395, aimed at mitigating the capital impacts linked to the introduction of the financial reporting standard IFRS 9 as well as the new grandfathering framework introduced by CRR to the instruments issued before 27 June 2019 and valid till 28 June 2025 for those instruments that do not comply with the new computability conditions presented.

Own funds differ from the net equity book value since prudential regulations aim to protect the quality of assets and reduce any potential volatility caused by the application of IAS/IFRS. The items that constitute own funds, therefore, must be fully available to the Group so that they may be used to cover risks and losses without any restrictions. Institutions are, in fact, required to demonstrate the quality and quantity of own funds in compliance with applicable European legislation.

Own funds are made up of the following:

- Tier 1 (T1) capital, consisting of:
  - Common equity Tier 1 (CET1);
  - Additional Tier 1 (AT1);
- Tier 2 (T2).

Common equity Tier 1 (CET1)

Full application requirements

Common equity Tier 1 (CET1) mainly consists of:

- ordinary shares;
- share premium reserve resulting from the calculated share capital;
- retained earnings;
- valuation reserves.

The requirements for including capital instruments in CET1 are very stringent. They include the following:

- ✔ capital instruments must be classified as equity for accounting purposes;
- ✔ the nominal amount cannot be reduced except in cases of liquidation or discretionary repurchases by the issuer, with the appropriate authorization by the Supervisory Authority;
- ✔ they must have perpetual duration;
- ✔ the issuer is not obliged to distribute dividends;
- ✔ the issuer can only distribute dividends

from distributable profits;
- ✔ there can be no preferential treatment in distributions, unless as a reflection of different voting rights;
- ✔ there are no caps on distribution;
- ✔ the cancellation of distributions does not result in restrictions on the issuer;
- ✔ compared to the other issued capital instruments, CET1 instruments absorb losses first and to a proportionally greater extent at the time they occur;
- ✔ they represent the most subordinated instruments in the event of the Parent Company's bankruptcy or liquidation;
- ✔ the holders have the right to the issuer's residual assets in the event of the issuer's liquidation;
- ✔ they are not subject to guarantees or contractual provisions that increase their seniority.

Profit for the period can be included in CET1 before final approval of the annual report only with the authorization by the Supervisory Authority and only if the following conditions are met: the profit must be audited by the external auditors and any dividends the Bank is going to distribute must be deducted from the profit for the period.

The CET1 calculation excludes the valuation reserve generated by *cash flow hedges* and the gains/losses from changes in the Bank's credit standing (*fair value* option liabilities and derivative liabilities).

Furthermore, CET1 includes additional value adjustments ("*prudent valuation*"). These adjustments are made to *fair value* exposures in the financial statements and must include the uncertainty of the parameters (model risk, unwinding costs, etc.) and potential future costs (operational risks, concentration risk, liquidity risk, etc.). The adjustments vary according to the financial instruments' classification as Level 1, 2 or 3.

In addition to these components, which represent the prudential filters, CET1 is subject to the following deductions:
- loss for the period;
- intangible assets, except for 'prudently valued software assets the value of which is not negatively affected by resolution, insolvency or liquidation of the institution'; including the goodwill implicit in the equity investments under significant influence or joint control, valued according to the equity method;
- tax assets that are based on future profitability and do not derive from temporary differences (tax losses and ACE);
- deferred tax assets that depend on future profitability and derive from temporary differences (net of the corresponding deferred tax liabilities). On the other hand, deferred tax assets that do not depend on future profitability and can be transformed into tax credits as per Law no. 214/2011 are not deducted. Instead, these latter assets are included in RWA and weighted at 100%;
- the surplus of expected losses on portfolio impairments validated for purposes of adopting the AIRB approach (so-called

"expected loss delta");

- direct, indirect and synthetic investments in the Bank's CET1 instruments;
- non-significant (<10%) direct, indirect and synthetic investments in CET1 instruments of financial institutions;
- significant (>10%) direct, indirect and synthetic investments in CET1 instruments of financial institutions;
- any deductions in excess of the AT1 instruments.

On 17 September 2019 Banca d'Italia published the 29th update of Circular no.285 ending the application of the national filters related to multiple goodwill redemption (it.: *"attività per imposte differite connesse ad affrancamenti multipli di un medesimo avviamento per la parte che non si è ancora tramutata in fiscalità corrente"*).

The application date of the new prudential treatment of software was set by the CRR II at 12 months from the entry into force of the aforementioned RTS. To free up capital and support digital investments by banks, Regulation 2020/873 brought forward the application date to the date on which the Technical Standards enter into force. It is worth noting that the prudential amortisation period should be the minimum between the useful life and 3 years for each asset. The amount to be deducted from CET1 has to be calculated by subtracting from the accumulated prudential amortisation, the accumulated accounting amortisation .

Deductions for equity investments in financial institutions and deferred tax assets are applicable only for the portions that exceed established CET1 thresholds, known as exemptions, according to the specific mechanism described below:

- insignificant investments in CET1 instruments of financial institutions are deducted, for the portion of the aggregate of insignificant investments in CET1, AT1 and T2 instruments of financial institutions that exceeds 10% of the CET1, in proportion with the CET1 instruments themselves. The portions referring to AT1 and T2 instruments are instead dedicated from the AT1 and T2 aggregates, respectively. The CET1 on which to calculate the 10% is obtained after applying the prudential filters and all deductions other than those for deferred tax assets that are dependent on future profitability and derive from temporary differences, to direct, indirect and synthetic investments in CET1 instruments of financial institutions, to any deductions in excess of the AT1 capital instruments and deductions in qualified equity investments in financial businesses;
- net deferred tax assets that depend on future profitability and derive from temporary differences are deducted for the portion that exceeds 10% of the CET1 that is obtained after applying the prudential filters and all deductions other than those for deferred tax assets that are dependent on future profitability and derive from temporary differences, to any deductions in excess of the AT1 capital instruments and deductions in

qualified equity investments in financial businesses;
- significant investments in CET1 capital instruments of financial institutions are deducted for the portion that exceeds 10% of the CET1 that is obtained after applying the prudential filters and all deductions other than those for deferred tax assets that are dependent on future profitability and derive from temporary differences, to any deductions in excess of the AT1 capital instruments and deductions in qualified equity investments in financial businesses;

- amounts not deducted as a result of the 10% exemption of significant investments in CET1 capital instruments of financial institutions and net deferred tax assets that depend on future profitability and derive from temporary differences, added together, are deducted only for the portion that exceeds 17.65% of the CET1 that is obtained after applying the prudential filters and all deductions, including investments in financial institutions and deferred tax assets, with the exception of any deductions in excess of the AT1 capital instruments.

Amounts not deducted as part of the exemptions are included in the RWA with 250% weighting. Non-controlling interests are calculated in CET1 to the extent to which they cover the corresponding minimum capital requirements of the subsidiary. Hence, any excess cannot be calculated in the CET1.

Transition requirements

With regard to the transitional period for the introduction of the “Basel 3” regulatory framework, the provisions applied by the Group, under the derogation granted by Regulation (EU) n. 2016/445 of the European Central Bank for credit institutions which are subject to restructuring plans approved by the Commission, refer to deferred tax assets that rely on future profitability and arise from temporary differences existing as at 1 January 2014, for which a specific transitional rules were been established over a period that will end in 2023 (50% in 2019, 60% in 2020, 70% in 2021, 80% in 2022, 90% in 2023 and 100% starting from 1 January 2024).

Below are the main features of the financial instruments which are included in Common Equity Tier 1.

Features of CET 1 instruments

Features of subordinated instruments	Interest rate	Step up	Issue Date	Maturity Date	Early redemption as of	Currency	Grandfathering	Original amount in currency units	31 12 2020 Contribution to capital (€/000)
Ordinary shares	N.A.	NO	N.A.	N.A.	N.A.	EUR	NO	9,195,012,197	8,881,302
Total Equity Instruments (Common Equity Tier 1 - CET1)									**8,881,302**

On 1 January 2018, accounting standard IFRS 9 "Financial Instruments", which replaces IAS 39 (on the classification and evaluation of financial assets and liabilities), came into effect.. On January 2018, the Montepaschi Group, availing itself of the option provided for by Regulation UE 2935/2017, has communicated to the competent supervisory authorities the intention to apply the IFRS9 transitional arrangements aimed at mitigating the impact on the own funds linked to the introduction of the new accounting standards. Such transitional regime, applicable from 1 January 2018 to 31 December 2022, as at art. 473 bis, Regulation UE no.575/2013, allows the isolation of the CET1 through a mechanism of gradual introduction of the IFRS 9 impact relative to the amendments carried out during FTA. In particular, coherently with the diminution of the equity linked to the major rectifications arisen from the application of the impairment model introduced by the IFRS9, it is allowed to be included, as positive element, a decreasing progressive quota of the increased reserves for attended credit losses in the Common Equity Tier 1, according to the following percentages:

- ✓95% from 1 January to 31 December 2018
- ✓85% from 1 January to 31 December 2019
- ✓70% from 1 January to 31 December 2020
- ✓50% from 1 January to 31 December 2021
- ✓25% from 1 January to 31 December 2022

On 26 June 2020, Regulation (EU) 2020/873 was published in the Official Journal of the European Union, amending the CRR and CRR II regulations, in order to adjust the prudential regulation framework to the requirements linked to the COVID-19 emergency. The Regulation introduced, inter alia, measures to relax the capital requirements applicable as of 27 June 2020, including changing the IFRS 9 transitional provisions, which allows banks to sterilise the capital impacts associated with the increase in credit value adjustments recognised in the 2020-2024 period with respect to 1 January 2020 for stage 1 and 2 portfolios. In particular, the Regulation provides for the re-introduction into Common Equity Tier 1 capital of a progressively decreasing share of the effect of the higher adjustments, equal to 100% in 2020 and 2021, 75% in 2022, 50% in 2023 and 25% in 2024. In addition, banks are allowed to re-introduce within CET 1 capital any increase in value adjustments recognized at 1 January 2020 with respect to 1 January 2018 for exposures classified in stages 1 and 2 (progressively decreasing until 2022; that is, 95% in 2018, 85% in 2019, 70% in 2020, 50% in 2021 and 25% in 2022). For the purposes of the calculation of minimum capital requirements for credit risk, starting from 30 June 2020, the Montepaschi Group, has availed itself of the option set out in paragraph 7bis of Article 473bis, which allows institution to replace the rescaling of all exposure values that are reduced by ECL provisions with a standard risk weight of 100% to be assigned to the amounts added back to CET1 capital. On 26 June 2020, BMPS, availing itself of the option provided for by Article 648 of CRR, as amended by Regulation (EU) 2020/873, has communicated to the competent supervisory authorities the intention to apply, at consolidated and individual level, the prudential filter relating to the OCI reserve on government bonds to attenuate the negative impact of the levels of volatility in the financial markets and the debt of central administrations on regulatory capital linked to the COVID-19 emergency. The temporary treatment, applicable in the period from 1 January 2020 to 31 December 2022, as set out in Article 468, allows banks to exclude from Common Equity Tier 1 capital the progressively decreasing amount of unrealised profits and losses accumulated starting from 31 December 2019, accounted for in the financial statement item "Changes in the fair value of debt instruments measured at fair value through other comprehensive income", with reference to exposures to central administrations, exposures to regional governments or local authorities (Article 115, paragraph 2 of CRR), and exposure to public sector entities (Article 116, paragraph 4 of CRR) provided such exposures are not classified as non-performing financial assets. Institutions shall apply the following percentages:

- ✓ 100% during the period from 1 January 2020 to 31 December 2020;
- ✓ 70% during the period from 1 January 2021 to 31 December 2021;
- ✓ 40% during the period from 1 January 2022 to 31 December 2022.

Additional Tier 1 (AT1)

Full application requirements

The main requirements for including capital instruments in AT1 are:

- ✓ the instruments are directly issued by the Bank and fully paid up;
- ✓ the subscription and acquisition must not be financed by the Parent Company or its subsidiaries;
- ✓ they are subordinated to T2 instruments in the event of bankruptcy;
- ✓ they are not subject to guarantees that increase their seniority issued by the

Parent Company, its subsidiaries or other companies with close ties to the Bank and its subsidiaries;

✓ they have indefinite duration and do not include incentives for repayment;

✓ call options may be exercised only at the issuer's discretion and, in any event, no earlier than 5 years, unless authorised by the Supervisory Authority related to specific circumstances;

✓ interest is paid as a function of distributable profits;

✓ the Parent Company has full discretion in paying interest and at any moment may decide to not pay for an unlimited period; the cancellation is not cumulative;

✓ cancellation of interest does not constitute issuer default;

✓ in the event of trigger events, the nominal value may be reduced permanently or temporarily, or the instruments may be converted into CET1 instruments;

✓ in the event of resolution, with the approval of the resolution authorities, the principal amount of the instruments is to be written down on a permanent basis or the instruments are to be converted into Common Equity Tier 1 instruments;

✓ the instruments are not subject to set-off or netting arrangements that would undermine their capacity to absorb losses.

AT1 is subject to the following deductions:

- direct, indirect and synthetic investments in the Bank's AT1 instruments;
- direct, indirect and synthetic investments in AT1 instruments of financial institutions which it owns a significant stake;
- direct, indirect and synthetic investments in AT1 instruments of financial institutions, which it does not own a significant stake; for the portion that exceeds the exemption of 10%, proportionally attributable to AT1 instruments;
- any adjustments exceeding T2.

Additional Tier 2 (T2)

Full application requirements

The main requirements for including capital instruments in T2 are:

✓ the instruments are directly issued by the Bank and fully paid up;

✓ the subscription and acquisition must not be financed by the Parent Company or its subsidiaries;

✓ they are not subject to guarantees that increase their seniority issued by the Parent Company, its subsidiaries or other companies with close ties to the Bank and its subsidiaries;

✓ the original duration is not less than 5 years and there are no incentives for early repayment;

✓ call options may be exercised only at the issuer's discretion and, in any event, no earlier than 5 years, unless authorised by the Supervisory Authority related to specific circumstances;

✓ interest does not vary based on the Parent Company's credit standing;

✓ amortisation of these instruments for purposes of inclusion in the T2 calculation is pro-rata temporis in the last 5 years;

T2 is subject to the following deductions:

- direct, indirect and synthetic investments in the Bank's T2 instruments;
- direct, indirect and synthetic investments in T2 instruments of financial institutions, which it owns a significant stake;
- direct, indirect and synthetic investments in T2 instruments of financial institutions, which it does not own a significant stake; for the portion that exceeds the exemption of 10%, proportionally attributable to T2 instruments.
- di T2.

It should be noted that in 2020 the Parent Company completed successfully two fixed-rate "Tier 2" subordinated bond loan, the first on January 22, 2020 with 10-year maturity, in the amount of EUR 400 mln, while the second was issued on September 6, 2020 with 10-year maturity, in the amount of EUR 300 mln.

Below are the main features of the financial instruments which are included in Tier 2.

Tier 2 – T2

Features of subordinated instruments	Interest rate	Step up	Issue Date	Maturity Date	Early redemption	Valuta	Grandfathering	Original amount in currency units	Contribution to capital (€/000)
Tier 2 instrument	5.375% fixed*	NO	18/01/18	18/01/28	18/01/23	EUR	NO	750,000,000	750,000
Tier 2 instrument	10.5% fixed	NO	23/07/19	23/07/29	NO	EUR	NO	300,000,000	300,000
Tier 2 instrument	8.0% fixed	NO	22/01/20	22/01/30	22/01/25	EUR	NO	400,000,000	400,000
Tier 2 instrument	8.5% fixed	NO	10/09/20	10/09/30	10/09/25	EUR	NO	300,000,000	300,000
Tier 2 (T2) capital								**1,750,000,000**	**1,750,000**

**5,375% fino al 18/01/2023, successivamente 5y eur mid swap rate + 5,005%*

The following tables are based on the templates from Implementing Regulation (EU) no. 1423 of 20 December 2013, which lays out the implementing technical standards for disclosure of own fund requirements for institutions according to Regulation (EU) no. 575/2013 of the European Parliament and of the Council. In particular, Annex II of the Regulation contains a specific template for publication of the main features of equity instruments. The tables provide a description of instruments issued by the Bank and eligible for calculation within Tier 2 Capital.

Main Features of the instrument

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS1752894292**
3	Governing law(s) of the instrument	English law except for subordination and "Statutory Loss Absorption Powers" conditions which are governed by Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	750
9	Nominal amount of instrument (currency in million)	750
9a	Issue price	100,00
9b	Redemption price	100
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	43118
12	Perpetual or dated	On maturity
13	Original maturity date	46770
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Issuer's optional call on 18/01/2023 (the "Issuer Call Date") at par, plus accrued interests. Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years
18	Coupon rate and any related index	5.375% till 18/01/2023, thereafter 5y eur mid swap rate +5.005%
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

"N/A" if the question is not applicable

Main Features of the instrument

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2031926731**
3	Governing law(s) of the instrument	English law except for subordination and "Statutory Loss Absorption Powers" conditions which are governed by Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	300
9	Nominal amount of instrument (currency in million)	300
9a	Issue price	100,00
9b	Redemption price	100
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	43669
12	Perpetual or dated	On maturity
13	Original maturity date	47322
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a.
18	Coupon rate and any related index	0,105
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

"N/A" if the question is not applicable

Main Features of the instrument

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2106849727**
3	Governing law(s) of the instrument	English law except for subordination and "Statutory Loss Absorption Powers" conditions which are governed by Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	400
9	Nominal amount of instrument (currency in million)	400
9a	Issue price	100,00
9b	Redemption price	100
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	43852
12	Perpetual or dated	On maturity
13	Original maturity date	47505
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Issuer's optional call on 22/01/2025 (the "Issuer Call Date") at par, plus accrued interests. Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years
18	Coupon rate and any related index	8,000% till 22/01/2025, thereafter 5y eur mid swap rate +8,149%
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

"N/A" if the question is not applicable

Main Features of the instrument

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2228919739**
3	Governing law(s) of the instrument	Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	300
9	Nominal amount of instrument (currency in million)	300
9a	Issue price	100,00
9b	Redemption price	100
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	44084
12	Perpetual or dated	On maturity
13	Original maturity date	47736
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Issuer's optional call on 10/09/2025 (the "Issuer Call Date") at par, plus accrued interests. Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years
18	Coupon rate and any related index	8,500% till 10/09/2025, thereafter 5y eur mid swap rate +8,917%
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

"N/A" if the question is not applicable

Here follows the Own Funds quantitative information exposed according to the general model for the publication of the information on the Own Funds (Annex IV of the Rule of Execution (UE) no. 1423/2013 if the European Committee), with the application of the transitional regime IFRS 9 and of the other transitional arrangements in force.

Moreover, the comparison with 31/12/2019 is brought according to the rules in force on 31/12/2019.

Tab. 3.1.1 – Transitional own funds disclosure template

	Common Equity Tier 1: instruments and reserves	Dec-2020	Dec-2019
1	Capital instruments and the related share premium accounts	9,195,012	10,328,618
	of which: Paid up capital instruments	*9,195,012*	*10,328,618*
2	Retained earnings	-1,822,533	-734,190
3	Accumulated other comprehensive income (and other reserves, to include unrealised gain and losses under the applicable accounting standards)	412,885	31,411
4	Amount of qualifying items referred to in Article 484 (3) and the related share premiun account subkect to phase out from CET1	-	-
	Public sector capital injections grandfathered until 1 January 2018	-	-
5	Minority Interests (amount allowed in consolidated CET1)	-	-
5a	Independently reviewed interim profits net of any foreseeable change or dividend	-1,688,984	-1,033,011
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**6,096,381**	**8,592,829**
	Common Equity Tier 1 (CET1) capital: regulatory adjustments		
7	Additional value adjustments (negative amount)	-35,014	-47,063
8	Intangible assets (net of related tax liability) (negative amount)	-120,709	-225,209
10	Deferred tax assets that rely on future probability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-147,133	-344,817
11	Fair value reserves related to gains or losses on cash flow hedges	-1,071	-1,328
12	Negative amounts resulting from the calculation of expected loss amounts	-	-
14	Gains or losses on liabilities valued at fair value resullting from changes in own credit standing	-29,828	-39,486
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-313,710	-313,710
17	Holdings of the CET1 instruments of financial sector entitites where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	-
18	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negarive amount)	-	-
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entitites where the institution has a significant investment in those entities (amount above 10% threshold and net the eligible short positions) (negative amount)	-439,045	-22,414
	Exposure amount of the following items which quality for a RW of 1250%, where the institution opts for the deduction alternative	-6,981	-
	of which: qualifying holdings outside the financial sector (negative amount)	-	-
	of which: securitisation positions (negative amount)	*-6,981*	-
	of which: free deliveries (negative amount)	-	-
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38 (3) are met) (negative amount)	-	-
22	Amount exceeding the 15% threshold (negative amount)	-91,270	-149,715
23	*of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entites where the institution has a significatn investment in those entitites*	*-59,978*	*-90,039*
25	*of which: deferred tax assets arising from temporary differences*	*-31,292*	*-59,676*
25a	Losses for the current financial year (negative amount)		
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR	1,141,696	1,171,237
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	-	-
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-43,063**	**27,495**
29	**Common Equity Tier 1 (CET1) Capital**	**6,053,319**	**8,620,324**

[1] Such item includes, IFRS 9 transitional adjustments for 1,209,107 €/thousand (1,169,984 €/thousand as at 31/12/2019) and other deduction with 17.65% thresholds for 395 €thousand (1,253 €thousand as at 31/12/2019). The amount as at 31/12/2020 also includes regulatory adjustments to unrealised gains and losses pursuant to Articles 467 and 468 for -67,806 €/thousand.

Tab. 3.1.2 – Own Funds: Additional Tier 1 (AT1) capital

	Additional Tier 1 (AT1) capital: instruments	Dec-2020	Dec-2019
30	Capital instruments and the related share premium accounts	-	-
31	*of which: classified as equity under applicable accounting standards*	-	-
32	*of which: classified as liablilities under applicable accounting standards*	-	-
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1	-	-
	Public sector capital injections grandfathered until 1 January 2018	-	-
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties	-	-
35	*of which: instruments issued by subsidiaries subject to phase out*	-	-
36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**-**	**-**
	Additional Tier 1 (AT1) capital: regulatory adjustments		
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	-	-
38	Holdings of the AT1 instruments of financial sector entities where those entitites have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	-
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	-
40	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	-	-
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	-	-
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-**	**-**
44	**Additional Tier 1 (AT1) capital**	**-**	**-**
45	**Tier 1 capital (T1 = CET1 + AT1)**	**6,053,319**	**8,620,324**

Tab. 3.1.3 – Own Funds: Tier 2 (T2) capital

	Tier 2 (T2) capital: instruments and provisions	Dec-2020	Dec-2019
46	Capital instruments and the realted share premium accounts	1,750,000	1,050,000
47	Amopunt of qualifying items referred to in Articole 484 (5) and the related share premium accounts subject to phase out from T2	-	-
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	-	-
49	*of which: instruments issued by subsidiaries subject to phase out*	-	-
50	Credit risk adjustments	122,511	169,999
51	**Tier 2 (T2) capital before regulatory adjustments**	**1,872,511**	**1,219,999**
	Tier 2 (T2) capital: regulatory adjustments		
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-	-
53	Holdings iof the T2 instruments and subordinated loans of financial sector entitites where those entitites have recirpocal cross holdings with the institution designed to inflate artificialli the own funds of the institution (negative amount)	-	-
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entitites where the institution does not have a significant investment in those entities (amount above 10% threshdol and net of eligible short positions) (negative amount)	-	-
55	Direct and indrect holdings by the institution of the T2 instruments and subordinated loans fo financial sector entitites where the institution has a significant investment in those entities (net eligible of short positions)	-65,892	-65,663
	Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No. 575/2013	-	-
	of whichi: Losses for the current year	-	-
	of which: Significant financial instruments	-	-
	of which: outstanding amount related to the excess of expected losses with respect to adjustments for IRB positions	-	-
	Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tir 1capital during the transitional period pursuant to article 472 of Regulation (EU) No. 575/2013	-	-
	Amount to be deducted from or added to Tier 2 capital capital with regard to additional filters and deductions required pre-CRR	-	-
	of which: unrealised gains	-	-
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-65,892**	**-65,663**
58	**Tier 2 (T2) capital**	**1,806,619**	**1,154,336**
59	**Total Capital (TC= T1+T2)**	**7,859,937**	**9,774,660**
60	**Total Risk Weighted Assets**	**49,903,123**	**58,559,094**

Tab. 3.1.4 – Own Funds: Capital ratios and buffers

	Capital ratios and buffer	Dec-2020	Dec-2019
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	12.13%	14.72%
62	Tier 1 (as a percentage of risk exposure amount)	12.13%	14.72%
63	Total capital (as a percentage of risk exposure amount)	15.75%	16.69%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	7.13%	7.01%
65	*of which: capital conservation buffer requirement*	*2.500%*	*2.500%*
66	*of which: countercyclical buffer requirement*	*0.001%*	*0.011%*
67	*of which: systemic risk buffer requirement*	-	-
67a	*of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer*	*0.13%*	-
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	6.13%	8.69%
	Capital ratios and buffer		
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	148,680	162,340
73	Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	544,194	762,122
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	283,924	505,115
	Applicable caps on the inclusion of provisions in Tier 2		
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	-	-
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	-	-
78	Credit risk adjustments included in T2 in respect of exposures subject to sIRB approach (prior to the application of the cap)	373,101	490,751
79	Cap on inclusion of credit risk adjustments in T2 under IRB approach	122,511	169,999
	Capital instruments subject to phase-out arrangements (only 1 Jan 2013 and 1 Jan 2022)		
80	Current cap on CET1 instruments subject to phase out arrangements	-	-
81	Amount excluded from CET1 due to cap (excess mover cap after redemptions and maturities)	-	-
82	Current cap on AT1 instruments subject to phase out arrangements	-	-
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	-
84	Current cap on T2 instruments subject to phase out arrangements	-	-
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	-

[2] *Tier 1 capital available for reserves is calculated as the difference between the Common Equity Tier 1 and the requirement eferring to Tier 1 capital for the portion covered by Common Equity Tier 1 Capital and Tier total capital components, expressed as a percentage of risk exposure amount.*

Tab. 3.2 – Reconciliation of shareholders' equity and the Common Equity Tier 1

Items	Dec-2020	Dec-2019
Equity of Group	5,782,672	8,279,119
Equity of third parties	1,310	1,770
Equity of Balance Sheet	**5,783,981**	**8,280,889**
Equity post distibution to shareholders	**5,783,981**	**8,280,889**
Adjustments for instruments computable in AT1 or in T2		
- Eligible capital in the AT1	-	-
- Taxable minority interests	-1,310	-1,770
- Treasury shares included in regulatory adjustments	-313,710	-313,710
- Other components that cannot be included in the system	-1,071	-1,328
Common Equity Tier 1 (CET1) capital before regulatory adjustments	**5,781,600**	**8,277,791**
Regulatory adjustments (including transitional period adjustments)	271,718	342,533
Common Equity Tier 1 (CET1) capital after regulatory adjustments	**6,053,319**	**8,620,324**

Tab. 3.3 – Full reconciliation of the components of Common Equity Tier 1, Additional Tier 1 and Tier 2 capital, as well as the filters and deductions applied to the institution's own funds and the balance sheet of the financial statements

Items (Euro th)	Financial Statement	Prudential Statement	Information about differences	Relevant amount for the purpose of Own Funds	See Table "Own Funds Disclosure Template"
ASSETS					
70. Equity investments	1,107,463	1,161,769	54,306	-442,766	8, 18, 19, 23
of which: implicit goodwill	*49,112*	*49,112*	-	*-49,112*	*8*
100. Intangible assets	183,945	183,945	-	-183,945	8
of which: goodwill	*7,900*	*7,900*	-	*-7,900*	*8*
of which: other intangible assets	*176,045*	*176,045*	-	*-176,045*	*8*
110. Tax assets	1,986,164	2,761,951	*775,787*	-178,425	10, 21, 25
of which: tax assets that rely on future profitability and do not arise from temporary differences net of the related deferred tax liability	*169,749*	*169,749*	-	*-147,133*	*10*
Liabilities and Shareholders' Equity					
10. Financial liabilities measured at amortised cost - c) debts securities issued	12,842,254	12,842,254	-	1,750,000	32, 33, 46, 52
30. Financial liabilities designated at fair value	193,332	193,332	-	-	33
120. Valuation reserves	260,853	260,853	-	259,781	3, 11
of which: FVOCI	*288,448*	*288,448*	-	*254,270*	*3 (FVOCI)*
of which: CFH	*1,071*	*1,071*	-	*-1,071*	*3(CFH),11*
of which: legally-required revaluations	*6,582*	*6,582*	-	*6,582*	*3(rival)*
of which: other	*-35,249*	*-35,249*	-	-	*3(other)*
150. Reserves	-1,670,500	-1,670,500	-	-1,670,500	2, 3
160. Share premium reserve	-	-	-	-	-
170. Share Capital	9,195,012	9,195,012	-	9,195,012	1, 2, 31
180. Treasury shares	-313,710	-313,710	-	-313,710	16
200. Profit/loss for the period	-1,688,984	-1,688,984	-	-1,688,984	5a, 25a
Fair value gains and losses arising from the institution's own credit risk related to derivative liabilities				-29,828	14
Value adjustments due to the requirements for prudent valuation				-35,014	7
IRB Shortfall of credit risk adjustments to expected losses				-	12
IRB Excess of provisions over expected losses eligible				122,511	50
Filter on double tax realignment				-	26b
Filter for IAS 19 and IFRS 9				1,141,696	26b
Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities				-	39
Direct and indirect holdings of Tier 2 instruments of financial sector entities where the institution has a significant investment				-65,892	54, 55
Indirect investments				-	-
Total Own Funds				**7,859,937**	

The information was summarized according to the methodology described in Annex I of the Implementing Regulation (EU) No. 1423/2013 which establishes technical standards implementation with regard to the disclosure on Own Funds.

4. Capital requirements, liquidity ratios and leverage

The Montepaschi Group pursues strategic objectives focused on quantitative and qualitative strengthening of capital, structuring rebalancing of liquidity and achievement of sustainable levels of profitability. In this perspective, *capital management*, *planning* and *allocation* activities play a crucial role in ensuring compliance over time with the minimum capitalisation requirements set by the regulations and the supervisory authorities, as well as with the risk appetite level approved by the Group's strategic supervision body.

This is the purpose served by the Risk Appetite Framework (RAF) through which the target capitalisation levels are estimated on a yearly basis and capital is allocated to the *business* units according to expected development and estimated risk levels, making sure that the allocated capital is sufficient to ensure compliance with minimum requirements, under both normal and stress conditions.

In the context of the RAF, prospective capital adequacy assessments are performed over a multiyear period, under both normal and stress conditions.

The achievement of objectives and compliance with regulatory minimum requirements is constantly monitored throughout the year.

The formal corporate processes to which the RAF is applied at least on an annual basis are the budget, the risk appetite, the ICAAP and the ILAAP. The Budgeting, Planning, Capital and Risk Management processes of the Montepaschi Group are based on the "Risk Adjusted Performance Management" (RAPM) logic.

The Montepaschi Group defines its targets on the basis of a Risk Adjusted Performance Measurement (RAPM), which measures profitability net of the cost of capital to be held for regulatory purposes relative to the assumed risk level.

The definitions of equity applied are those used in Supervisory Regulations: Common Equity Tier 1, Tier 1 and Capital; moreover, the RAPM metrics also include Invested Capital, i.e. the amount of Shareholders' equity needed to achieve Common Equity Tier 1 values, whether determined ex ante as target levels or realised ex post. The Capital Risk concepts applied are those in the regulatory requirements, corresponding to the Risk Weighted Assets (RWAs), determined on the basis of the rules set out in the supervisory regulations, and the economic capital corresponding to the maximum losses estimated on measurable risks at a predetermined confidence interval and on the basis of the Group's internal models and rules.

Both measurements are used as part of RAPM metrics.

Following the implementation of the regulatory framework, Pillar 1, which governs the requirements used to reflect the potential risk of activities as well as capital requirements, was strengthened through a more harmonised definition of capital as well as higher capital requirements. Therefore, alongside the minimum levels of capital required to face credit, counterparty, market and operational risks, a definition of higher quality capital has been added to own resources, essentially focused on common equity, also added are capital reserves which have the function of preserving primary capital, providing counter-cyclical buffers and hedging against greater losses for systemically important financial institutions. These reserves are determined by the Member States (Bank of Italy) in accordance with the framework and are to be added to Core Equity Tier 1. In addition to the system of minimum capital requirements and reserves, there is now a monitoring plan of leverage caps (including off-balance sheet exposures) as a *backstop* to capital requirements based on risk and to reduce excessive leverage across the system.

The regulatory *framework* also introduces liquidity risk monitoring requirements and tools which focus on short-term liquidity resilience (*Liquidity Coverage Ratio* - LCR) and longer-term structural balance (*Net Stable Funding Ratio* - NSFR) as well as providing standards for liquidity risk management and monitoring at both individual and system-wide level.

Capital Adequacy

Starting from January 2014, under the prudential regulation, the minimum equity requirements are as follows: CET1 ratio of at least 4.5%, un AT1 ratio of at least 6% e unTotal Capital ratio of at least 8% of the Group's total risk exposure.

In addition to maintaining these minimum requirements against Pillar 1 risk, there is a further Core Equity Tier 1 component against Pillar 2 risks established following the annual SREP, as well as the following buffers also made up of CET1:

- ***capital conservation buffer*** - aimed at preserving the minimum level of regulatory capital during difficult periods in the market, through the allocation of high-quality capital in periods in which there are no market tensions. This reserve is mandatory and must be 2.5% from of 1 January 2019;
- ***countercyclical capital buffer*** - aimed at protecting the banking sector in phases of excessive growth in loans. The buffer provides for the accumulation of CET1 capital during phases of rapid growth in the credit cycle, which can then be used to absorb losses in the downward phase of the cycle. As opposed to the capital conservation buffer, the countercyclical buffer is imposed only during periods of loan growth and is calculated according to CRD IV provisions by the competent national authorities; in the fourth quarter of 2020, the countercyclical buffer for Italy was kept at 0%. For the other credit exposures, the Group uses the countercyclical buffers established by the counterparty's Member State

authorities in accordance with applicable regulations;

- the ***systemic risk buffer***, aimed at dealing with long-term non-cyclical systemic risk in the financial sector, is to be established by the Member States and, currently, has not yet been determined by the Bank of Italy;
- G-SII buffer for global systemically important banks and O-SII buffer for other systemically important institutions - impose higher capital requirements on those entities based on their systemic relevance, at a global or national level, which pose greater risks for the financial system and for which a crisis could have impacts on contributors. it should be noted that from 1 January 2020, compared to 2019, the Monte dei Paschi di Siena is back to being identified as an institution of relevance national systemic (Other Systemically Important Institution, O-SII), exceeding the minimum thresholds indicated by the EBA guidelines in terms of size, importance for the economy Italian, complexity and interconnection with the financial system. The combination of these buffers determines the Combined Buffer Requirement (CBR).

Capital requirements – 2020

As a result of the conclusion of the SREP conducted with reference to the figures as at 31 December 2018 and taking into account the information received after that date, with the submission on 10 December 2019 of the 2019 SREP Decision, The ECB asked the Parent Company to comply with a CET1 ratio of at least 4.5%, a Tier 1 ratio of at least 6% and a Total capital Ratio of at least 8% of the Group's total risk exposure.

In addition to maintaining these minimum requirements against Pillar 1 risks, there is an additional Pillar 2 requirement (P2R) of 3%, unchanged from 2019, to be held entirely in the form of CET1 capital.

According to this decision in 2020 the Group must fulfil a Total SREP Capital Requirement (TSCR) of 11% on a consolidated basis, with a minimum requirement of 7.5% and 9% in terms of CET1 capital and Tier 1 capital, respectively.

In terms of CBR:

- 2.50% Capital Conservation Buffer;
- 0.001% Countercyclical Capital Buffer;
- 0.13% O-SII Buffer. Note that, on 30 November 2019, Bank of Italy identified MPS Group as a systematically important institution in Italy for 2020 and therefore, starting from 1 January 2020, MPS Group is required to maintain a capital reserve of 0.13% (0.19% from 1 January 2021 and 0.25% from 1 January 2022).

The CBR is therefore equal to 2.63%.

The overall minimum requirement for 2020 in terms of Total Capital Ratio is 13.63%, while the overall minimum requirement in terms of CET1 ratio is 8.82%.

Note that, in consideration of the potential impacts on the activities of significant banks linked to the spread of COVID-19, on 8 April 2020 the ECB communicated to the Parent Company the modification, effective from 12 March 2020, of the 2019 SREP Decision, with reference to the composition of the additional Pillar 2 capital requirement. In particular, the additional Pillar II capital requirement to be held in the form of CET1 must be met at least 56.25% by Common Equity Tier 1 (CET1) and at least 75% by Tier 1 Equity (Tier 1). Accordingly, the Group must meet the following requirements at the consolidated level as at 31 December 2020:

Capital adequacy indicators **as of 31 December 2020**	**CET 1 Ratio**	**Tier 1 Ratio**	**Total Capital Ratio**
Pillar I minimun Requirements (Art. 92 CRR, Pillar I)	4.50%	6.00%	8.00%
TSCR (Pillar I+P2R)	6.19%	8.25%	11.00%
Combined Buffer Requirement (CBR)	*2.63%*	*2.63%*	*2.63%*
OCR (TSCR+CBR)	**8.82%**	**10.88%**	**13.63%**
Capital Ratio	**12.13%**	**12.13%**	**15.75%**

TSCR - Total SREP Capital Requirement
CBR - Combined Buffer Requirement
OCR - Overall Capital Requirement. It includes, in addition to P2R, 2.5% for the Capital Conservation Buffer.

As of 31 December 2020, the Bank had a CET1 ratio of 12.13%, higher than the minimum requirements set forth in Article 92 of the CRR and higher than the Total SREP Capital Requirement set by ECB and higher than the Overall Capital Requirement for 2020 (likewise, the Tier 1 ratio and the Total Capital Ratio are higher than the requirements established by Article 92 of the CRR.). As regards its guidance, the ECB expects BMPS to adjust on a consolidated basis to a P2G of 1.3%, unchanged compared to 2019. In this regard, as at 31 December 2020, the Tier 1 ratio was 5 basis points below the P2G level. It is noted, however, that on 12 March 2020, the European Central Bank (ECB) issued a press release entitled "ECB Banking Supervision provides temporary capital and operational relief in reaction to coronavirus", in which, amongst other things, the ECB, as also clarified in the subsequently published FAQs, announced the possibility of temporarily operating below the capital level defined by Pillar II Capital Guidance (P2G), the capital conservation buffer (CCB)

Capital requirements – 2021

On 28 December 2020, the ECB sent the 2020 SREP Decision to the Parent Company, which indicates the capital requirements to be met starting from 1 January 2021, Specifically, the MPS Group must meet a Total SREP Capital Requirement (TSCR) of 10.75%, at consolidated level, , which includes a minimum Pillar 1 requirement ("P1R") of 8% (of which 4.50% in CET1 capital) and an additional Pillar 2 requirement ("P2R") of 2.75% (compared to 3% of the 2019 SERP Decision), which must be satisfied with CET1 capital for at least 56.25% and with Tier 1 capital for at least 75%.

The overall minimum requirement for the Total Capital ratio, obtained by adding a Combined Buffer Requirement (CBR) of 2.69% to the TSCR, is 13.44%. The overall minimum requirement in terms of CET1 ratio is 8.74%, the sum of P1R (4.50%), P2R (1.55% 2) and CBR (2.69%); the overall minimum requirement in terms of Tier 1 is 10.75%, including P1R of 6%, P2R of 2.06% 3 and CBR of 2.69%.

Quantitative information

As to the definition of regulatory capital requirements, in June 2008 the Montepaschi Group was authorised to use the Advanced Internal Rating Based (AIRB) models for the measurement of capital requirements against credit risk in the retail and corporate portfolios and the Advanced Measurement Approach (AMA) for operational risk.

The AIRB model's scope of application currently includes the Parent Company Banca MPS, MPS Capital Services Banca per le Imprese and MPS Leasing & Factoring, for the regulatory portfolios "Retail Exposures" and "Exposures to corporates". For the remaining portfolios and Group entities, capital requirements against Credit risk are calculated using the standard approach. Capital requirements against Counterparty risk are calculated independently of the portfolio. More specifically, the Market value method is applied for OTC derivatives and the comprehensive approach for the treatment of financial collateral is used for repos, sell-buy backs and security lending.

Capital requirements against CVA risk are calculated according to the standard approach.

Capital ratios for Operational Risk are calculated almost completely according to the AMA – Advanced Measurement Approach. The standardized approach is used for the remaining part of the scope.

Capital requirements in relation to market risk are instead calculated for all Group entities by adopting the standardized approach.

The tables below provide details on the Group's different capital requirements as at 31 December 2020.

Tab. 4 – Capital requirements and Regulatory capital ratios

Regulatory Capital Requirements	Dec-20	Dec-19
Credit and Counterparty Risk	**2,832,771**	**3,618,890**
Standardised Approach	1,156,123	1,340,481
Advanced IRB Approach	1,676,648	2,278,409
Market Risks	**198,994**	**211,703**
Standardised Approach	198,994	211,703
Internal Models	-	-
Operational Risk	**925,251**	**825,620**
Foundation Approach	6,738	7,743
Standardised Approach	-	-
Advanced Approach	918,513	817,877
CVA Risk	**35,235**	**28,515**
Originary Exposure Method (OEM)	-	-
Standardised Approach	35,235	28,515
Advanced Approach	-	-
Concentration Risk	-	-
Settlement Risk	-	-
Regulatory Capital Requirements	**3,992,250**	**4,684,728**
Risk Weighted Assets	**49,903,123**	**58,559,094**
CET1 Capital Ratio	**12.13%**	**14.72%**
Tier1 Capital Ratio	**12.13%**	**14.72%**
Total Capital Ratio	**15.75%**	**16.69%**

Report on IFRS 9

Having opted for the adoption of the transitional arrangements, the Group, under the EBA Guidelines GL/2018/01, is required to provide a comparison between own funds, risk-weighted assets, capital and leverage ratios, with and without the application of the IFRS 9 transitional arrangements or equal losses on credits.

The aggregates of prudential supervision contained in this disclosure include any further impact resulting from the new transitional arrangements introduced by Regulation (EU) 2020/873 in response to the COVID-19 pandemic, which extended and strengthened the transitional arrangements pursuant to art. 473 bis of the CRR Regulation (CRR "*Quick fix*").

Here follows the required information, according to the specified informative template in the Annex I of EBA Guidelines

GL/2020/12 (Template IFRS 9/Article 468-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR) amending Guidelines EBA/GL/2018/01 on uniform disclosures under Article 473a of Regulation (EU) No 575/2013 (CRR) on the transitional period for mitigating the impact of the introduction of IFRS 9 on own funds to ensure compliance with the CRR 'quick fix' in response to the COVID-19 pandemic.

Tab. 4a – Template IFRS 9/Article 468-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR

		Dec-20	Set-20	Jun-20	Mar-20
Available capital (amounts)					
1	Common Equity Tier 1 (CET1) capital	6,053,319	7,225,949	7,723,868	8,049,172
2	Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,835,626	6,074,513	6,594,351	7,013,684
2a	CET1 capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI (other comprehensive income) in accordance with Article 468 of the CRR had not been applied	6,121,124	7,249,708	7,715,235	-
3	Tier 1 capital	6,053,319	7,225,949	7,723,868	8,049,172
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4,835,626	6,074,513	6,594,351	7,013,684
4a	Tier 1 capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	6,121,124	7,249,708	7,715,235	-
5	Total capital	7,859,937	9,066,100	9,268,738	9,604,658
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	6,642,244	7,914,663	8,139,221	8,569,170
6a	Total capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	7,927,743	9,089,858	9,260,104	-
Risk-weighted assets (amounts) Risk-weighted assets (amounts)					
7	Total risk-weighted assets	49,903,123	56,125,871	57,799,860	59,257,978
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	49,798,401	56,306,612	58,063,032	59,350,924
Capital Ratios					
9	Common Equity Tier 1 (as a percentage of risk exposure amount)	12.13%	12.87%	13.36%	13.58%
10	Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	9.71%	10.79%	11.36%	11.82%
10a	CET1 (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	12.26%	12.92%	13.34%	
11	Tier 1 (as a percentage of risk exposure amount)	12.13%	12.87%	13.36%	13.58%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	9.71%	10.79%	11.36%	11.82%
12a	Tier 1 (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	12.26%	12.92%	13.34%	
13	Total capital (as a percentage of risk exposure amount)	15.75%	16.15%	16.04%	16.21%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	13.34%	14.06%	14.02%	14.44%
14a	Total capital (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	15.88%	16.20%	16.01%	
Leverage ratio					
15	Leverage ratio total exposure measure	137,983,522	139,521,675	156,278,504	148,953,773
16	Leverage ratio	4.39%	5.18%	4.94%	5.40%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	3.54%	4.34%	4.25%	4.72%
17a	Leverage ratio as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	4.44%	5.14%	4.94%	

The application of the IFRS 9 *fully loaded* without taking into account the impact deriving from the cohesion with he transitional regime expected from 2018, would have entailed a reduction of 242 bp and 241 bp, respectively of CET1 ratio and total capital ratio. Such coefficients would have resulted in 9.71% (instead of 12.13% transitional arrangements) and 13.34% (instead of 15.75%) respectively of CET1 ratio and total capital ratio. IFRS 9 fully-loaded application would have entailed a total CET1 decrease of about 1.2 bn euro linked to major provisions implemented during FTA on IRB credit exposure.

The following table provides a general overview of the total RWAs and capital requirements.

Tab. 4b (EU OV1) – Overview of RWAs

			RWAs		Minimum capital requirements	
			Dec-20	Sep-20	Dec-20	Sep-20
	1	**Credit risk (excluding CCR)**	**31,620,466**	**38,313,311**	**2,529,637**	**3,064,282**
Article 438 (c) (d)	2	Of which the standardised approach	11,477,325	12,545,537	918,186	1,002,860
Article 438, (c) (d)	3	Of which the foundation IRB (FIRB) approach	-	-	-	-
Article 438 (c) (d)	4	Of which the advanced IRB (AIRB) approach	20,143,141	25,767,773	1,611,451	2,061,422
Article 438, d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	-	-	-	-
Article 107, Article 438 (c) (d)	6	**CCR**	**1,825,798**	**1,815,838**	**146,064**	**145,267**
Article 438(c) (d)	7	Of which mark to market	758,582	713,246	60,687	57,060
Article 438, lettere c) e d)	8	Of which original exposure	-	-	-	-
	9	Of which the standardised approach	-	-	-	-
	10	Of which internal model method (IMM)	-	-	-	-
Article 438(c) (d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	17,448	7,803	1,396	624
Article 438 (c) (d)	12	Of which CVA	440,432	403,098	35,235	32,248
Article 438 (e)	13	**Settlement risk**	-	-	-	-
Article 449 (o) (i)	14	**Seecuritisation exposures in the banking book (after the cap)**	**568,241**	**165,796**	**45,459**	**13,264**
	15	Of which IRB approach	539,642	131,509	43,171	10,521
	16	Of which IRB supervisory formula approach (SFA)	17,115	12,558	1,369	1,005
	17	Of which internal assessment approach (IAA)	11,485	21,729	919	1,738
	18	Of which standardised approach	-	-	-	-
Article 438 (e)	19	**Market risk**	**2,487,420**	**2,414,649**	**198,994**	**193,172**
	20	Of which the standardised approach	2,487,420	2,414,649	198,994	193,172
	21	Of which IMA	-		-	-
Article 438 (e)	22	**Large exposures**	-	-	-	-
Article 438 (f)	23	**Operational risk**	**11,565,638**	**11,328,364**	**925,251**	**906,269**
	24	Of which basic indicator approach	84,222	91,332	6,738	7,307
	25	Of which standardised approach	-	-	-	-
	26	Of which advanced measurement approach	11,481,417	11,237,032	918,513	898,963
Article 437(2), Article 48 and 60	27	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	**1,835,559**	**2,087,914**	**146,845**	**167,033**
Article 500	28	Floor adjustment	-	-	-	-
	29	**Total**	**49,903,123**	**56,125,871**	**3,992,250**	**4,490,070**

The sum of rows 1,6 (excluding row 12), 14 and 27 is consistent with the item of total credit and counterparty risk of tables 4.1 and 4.2. Row 6 (consistent with table 6.2.1 - EU CCR1), in addition to rows 7,8,9,10,11 and 12, includes the amount related to the financial collateral comprehensive method (for SFTs) equal to 609,33 €/thousand of RWA as at 31 December 2020

As of 31 December 2020 RWAs recorded a deccrease, compared to the previous quarter, mainly attributable to lower RWAs relating to credit risk for which there was a decrease in the Standr portfolio of -1,359 €/mln. A further decrease of 5,613 €/mln was recorded in the AIRB portoflios determined by the deconsolidation of the "Hydra M" portfolio on 1 December 2020 (ca. 2,140 €/mln as well as by new disbursements which benefit from high standing guarantees. In addition, two synthetic securitisation transactions (CRC e FEI) have been completed, with a reduction in RWAs by about 1,000 €/mln
The slight increase in RWAs relating to market risk essentially attributable to exchange rate risk as well as new transaction UCIs and equity securities and an increase in RWAs relating to operational risk, mainly recorded in the folowwing risk classes: 'Customers, products and operating practices' and 'Business disruptions and system failures'.

Further information on exposures (non-weighted amounts) and RWAs (weighted amounts), are reported:

- for exposures subject to the standard approach – credit risk in Section 5.2 (which also contains the amounts of off-balance sheet transactions after weighting by credit conversion factors – CCF);
- for exposures subject to internal credit risk models in section 5.3;
- for exposures in securitisation positions subject to the standard approach and AIRB approach in section 11.

Tab. 4.1 – Capital requirements for Credit and Counterparty Risk

	Dec-20	Dec-19
	Requirements	Requirements
Standard Approach		
Standard Approach Total	**1,156,123**	**1,340,481**
of which: Counterparty Risk	*87,409*	*85,139*
IRB Approach		
IRB Approach Total	**1,676,648**	**2,278,409**
of which: Counterparty Risk	*22,025*	*19,374*
Total	**2,832,771**	**3,618,890**
of which: Counterparty Risk	***109,433***	***104,512***

The Capital Requirement for Counterparty Risk amounts to 109,433 €/thousand and has been calculated on both the Trading Portfolio and the Banking Book. The requirement, summarised by methodology in table 4.1, is reported in the individual regulatory portfolios of the Standard Apporach and the AIRB Approach in table 4.2.

Tab. 4.2 – Capital requirements for Credit and Counterparty Risk

Standard Approach	Dec-2020	Dec-2019
Exposures to central governments or central banks	106,028	139,689
Exposures to regional governments or local authorities	22,283	24,657
Exposures to public sector entities	24,999	28,966
Exposures to multilateral development banks	-	-
Exposures to International organisations	-	-
Exposures to institutions	153,986	161,965
Exposures to Corporates	208,704	266,280
Retail exposures	36,429	47,422
Exposures secured by mortgages on immovable property	34,758	44,566
Exposures in default	21,157	36,424
Exposures associated with high risk	27,480	39,754
Exposures in the form of covered bonds	6,598	6,843
Exposures to institutions and corporates with a short-term credit assessment	-	-
Exposures to collective investments undertaking	18,165	18,362
Equity exposures	131,280	179,493
Other exposures	360,572	344,224
Securitization positions	2,288	712
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	1,396	1,123
Total standardised approach	**1,156,123**	**1,340,481**
AIRB Approach		
Exposures to or secured by corporates:	1,078,215	1,578,584
- SMEs	425,742	717,067
- Other companies	559,294	740,363
- Specialized lending	93,180	121,154
Retail exposures:	555,261	688,067
- secured by real estate: SMEs	116,319	148,355
- secured by real estate: Individuals	275,778	292,365
- Qualifying revolving	469	597
- Other retail exposures: SMEs	142,783	223,332
- Other retail exposures: Individuals	19,912	23,418
Securitization positions	43,171	11,757
Total AIRB approach	**1,676,648**	**2,278,409**
Total Credit and Counterparty Risk	**2,832,771**	**3,618,890**

** Securitization positions subject to Standard approach include securitizations under the SEC-ERBA and SEC-SA.*
*** Securitization positions subject to AIRB approach include securitizations under the SEC-IRBA.*

Below is a breakdown of capital requirements for Credit and Counterparty Risk (IRB method) –Specialised Lending - slotting criteria, for Market Risk and Operational Risk.

Tab. 4.3 – Capital requirements for Credit and Counterparty Risk (IRB methods) – Specialised lending - *slotting criteria*

Risk weight	Dec-2020	Dec-2019
Category 1 - 50%	130	118
Category 1 - 70% equal to or greater than 2.5 years	8,813	9,787
Category 2 -70% less than 2.5 years	8,871	7,502
Category 2 - 90%	50,782	68,762
Category 3 - 115%	14,064	27,213
Category 4 - 250%	10,520	7,771
Category 5 - 0%	-	-
Total	**93,180**	**121,154**

Tab. 4.4 – Capital Requirements for Market Risk

Standardised Approach	Dec-2020	Dec-2019
Position risk on debt instruments	131,457	125,313
Position risk on equity	32,277	45,442
Foreign exchange risk	13,460	14,451
Commodities risk	10,971	9,960
CIU Risk	10,829	16,536
Total standardised approach	**198,994**	**211,703**
Internal models		
Total internal models	**-**	**-**
Total Market Risks	**198,994**	**211,703**

The capital requirement included in Marekt Risk for securitisaiton positions in the Regulatory Trading Portfolio amount 25.099 (expressed in thousands of Euros) for 2020.

Tab. 4.5 – Capital requirements for Operational Risk

Requirements by approach	Dec-2020	Dec-2019
Foundation approach	6,738	7,743
Standardised approach	-	-
Advanced Measurement approach	918,513	817,877
Total Operational Risk	**925,251**	**825,620**

The following table shows the main changes in RWA and capital requirements for credit risk under the IRB approach.

Tab. 4.6 (EU CR8) – RWA flow statements of credit risk exposures under the IRB approach

		RWA	Capital Requirements
1	**RWA as at 30 september 2020**	**25,767,773**	**2,061,422**
9	**RWA as at 31 december 2020**	**20,143,141**	**1,611,451**

The amounts are net of the counterparty risk component. The Please note that the values shown in the table include exposure to securitisation according to the AIRB approach (do not included in the row 4 of the EU OV1 table).

The details are provided below relating to the impact on RWAs in terms of the authorisation granted to entities not to deduct instruments of own funds held in a financial entity in which the entities hold a significant investment.

Tab. 4.7 (EU INS1) – Non-deducted participations in insurance undertakings

	Dec-2020
Holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk-weighting)	527,137
Total RWAs	**1,317,843**

Countercyclical Capital Buffer

As of 31 December 2020, the Montepaschi Group is required to hold a countercyclical capital buffer of 499,0 €/thousand. This buffer, as established by Article 130 of the CRD IV, is equal to the total risk exposure amount (expressed in terms of risk-weighted assets) multiplied by the institution's specific countercyclical rate, which, for the Montepaschi Group, stands at 0.001%. The latter is equal to the weighted average of the countercyclical rates applicable in the countries where the Institution has exposures. Each Member State, in accordance with article 130, paragraph 1 of Directive 2013/36/UE of the European Parliament and Council (CRD), shall require institutions to maintain an institution-specific countercyclical capital buffer against exposures to their own Country and establish the related countercyclical buffer rate. In particular, the Bank of Italy has set the countercyclical buffer rate for exposures to Italian counterparties at 0% for 2019 and the fourth quarter of 2020. As far as the other credit exposures are concerned, the Group uses the rates established by the competent authorities of the State in order to calculate its own indicator. As of 31 December 2020, only the competent authorities of United Kingdom, France, Denmark, Ireland, Hong Kong, Czech Republic, Sweden, Iceland, Lithuania, Bulgaria, Slovakia and Norway among the countries to which the Group has relevant exposures for the purpose of calculating the countercyclical buffer, have established a non-zero countercyclical capital buffer rate. As shown in the following tables, the Montepaschi Group holds 95.30% of relevant exposures to Italy, which has a 0% rate, for the purpose of calculating the countercyclical buffer. Reported below are the main items of calculation of the countercyclical capital buffer, presented in the standard format shown in table 2, Attachment I of Commission Delegated Regulation (EU) 1555/2015.

Tab. 4.8.1 – Amount of institution-specific countercyclical capital buffer

		Dec-2020
10	Total risk exposure amount (RWA)	49,903,123
20	Specific countercyclical coefficient of the institution	0.001%
30	Specific countercyclical capital buffer requirement of the institution	499.0

Summarized below are the exposures contributing to the total requirement for the Group's countercyclical capital buffer.

Tab. 4.8.2 – Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

	Exposures in the banking book		Exposures in the trading book		Exposures in securitisation		Own funds requirement				Weighting factors of own fund requirement	Countercyclical coefficient
	Exposure value under SA approach	Exposure value under AIRB approach	Sum of long and short positions	Exposure value under internal models	Exposure value under SA approach	Exposure value under AIRB approach	of which: generic credit exposures	of which: credit exposures of the trading book	of which: securitisation positions in the banking book	**Total**		
	10	20	30	40	50	60	70	80	90	**100**	110	120
Breakdown by country												
Italy	11,310,885	70,343,435	1,268,704	-	2,881,721	-	2,378,889	29,168	45,459	2,463,516	95.302%	0.000%
Luxemburg	157,637	935	59,193	-	-	-	4,500	3,310	-	7,810	0.302%	0.250%
Norway	7,720	414	634	-	-	-	291	51	-	342	0.013%	1.000%
Czech Republic	1,480	110	-	-	-	-	56	-	-	56	0.002%	0.500%
Hong Kong	466	601	70	-	-	-	11	6	-	17	0.001%	1.000%
Bulgaria	804	276	-	-	-	-	13	-	-	13	0.001%	0.500%
Slovakia	316	208	-	-	-	-	13	-	-	13	0.000%	1.000%
Other	2,171,682	95,370	5,028,579	-	-	-	98,109	15,048	-	113,157	4.375%	-
Total	**13,650,991**	**70,441,349**	**6,357,179**	**-**	**2,881,721**	**-**	**2,481,883**	**47,582**	**45,459**	**2,584,924**	**99.996%**	**0.001%**

The following table, presented in the standard format set out in table 1, Attachment I of Commission Delegated Regulation (EU) 1555/2015, shows the geographical distribution of exposures with their related capital requirements, relevance within total Group exposures (weighting factors of own funds requirements) and the countercyclical rate.

Tab. 4.8.3.1 – Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

	Exposures in the banking book		Exposures in the trading book		Exposures in securitisation		Own funds requirement				Weighting factors of own fund requirement	Counter-cyclical coefficient
	Exposure value under SA approach	Exposure value under AIRB approach	Sum of long and short positions	Exposure value under internal models	Exposure value under SA approach	Exposure value under AIRB approach	of which: generic credit exposures	of which: credit exposures of the trading book	of which: securitisation positions in the banking book	Total		
Breakdown by country												
Italy	11,310,885	70,343,435	1,268,704	-	2,881,721	-	2,378,889	29,168	45,459	2,463,516	95.302%	0.000%
France	666,816	16,445	3,808,324	-	-	-	33,930	1,590	-	35,521	1.374%	0.000%
Ireland	239,842	3,203	747,908	-	-	-	19,391	3,351	-	22,742	0.880%	0.000%
Spain	600,471	2,415	324,089	-	-	-	6,543	1,078	-	7,621	0.295%	0.000%
Luxembourg	157,637	935	59,193	-	-	-	4,500	3,310	-	7,810	0.302%	0.250%
United states	82,917	12,117	51,943	-	-	-	5,402	3,906	-	9,307	0.360%	0.000%
United kingdom	49,730	12,173	15,020	-	-	-	3,743	1,109	-	4,852	0.188%	0.000%
Germany	40,983	9,066	20,468	-	-	-	2,639	1,589	-	4,228	0.164%	0.000%
Netherlands	25,707	2,635	45,712	-	-	-	991	1,361	-	2,352	0.091%	0.000%
Abu dhabi	55,441	1,990	-	-	-	-	2,227	-	-	2,227	0.086%	0.000%
Belgium	37,492	1,102	124	-	-	-	3,129	10	-	3,138	0.121%	0.000%
Algeria	33,904	19	-	-	-	-	2,712	-	-	2,712	0.105%	0.000%
Russian federation	27,902	1,762	24	-	-	-	2,219	2	-	2,220	0.086%	0.000%
Mexico	31,397	651	-	-	-	-	1,001	-	-	1,001	0.039%	0.000%
China	25,577	1,251	23	-	-	-	1,890	2	-	1,892	0.073%	0.000%
Suriname	28,534	0	-	-	-	-	-	-	-	-	0.000%	0.000%
Tanzania, united republic of	24,940	59	-	-	-	-	1,562	-	-	1,562	0.060%	0.000%
Switzerland	8,679	13,738	862	-	-	-	690	69	-	759	0.029%	0.000%
Qatar	14,001	36	-	-	-	-	1,108	-	-	1,108	0.043%	0.000%
Cayman islands	11,121	-	238	-	-	-	890	19	-	909	0.035%	0.000%
Iraq	12,076	0	-	-	-	-	7	-	-	7	0.000%	0.000%
Portugal	7,532	265	2,235	-	-	-	551	72	-	623	0.024%	0.000%
Brazil	9,890	479	0	-	-	-	447	0	-	447	0.017%	0.000%
Austria	9,087	968	70	-	-	-	448	6	-	453	0.018%	0.000%
Norway	7,720	414	634	-	-	-	291	51	-	342	0.013%	1.000%
Croatia	6,901	427	-	-	-	-	296	-	-	296	0.011%	0.000%
Turkey	7,143	79	-	-	-	-	263	-	-	263	0.010%	0.000%
Romania	6,597	341	-	-	-	-	283	-	-	283	0.011%	0.000%
Armenia	6,777	0	-	-	-	-	1	-	-	1	0.000%	0.000%
Korea, republic of	5,723	1	-	-	-	-	371	-	-	371	0.014%	0.000%
Philippines	5,515	39	-	-	-	-	441	-	-	441	0.017%	0.000%
Canada	4,960	636	179	-	-	-	219	14	-	234	0.009%	0.000%
Japan	1,757	1	3,574	-	-	-	121	286	-	407	0.016%	0.000%
Chile	5,317	0	-	-	-	-	359	-	-	359	0.014%	0.000%
Morocco	4,736	176	-	-	-	-	237	-	-	237	0.009%	0.000%
Jersey, c.i.	600	-	3,833	-	-	-	48	307	-	355	0.014%	0.000%
Australia	3,358	972	0	-	-	-	230	0	-	230	0.009%	0.000%
Argentina	4,379	202	0	-	-	-	8	0	-	8	0.000%	0.000%
Taiwan	3,586	0	169	-	-	-	287	13	-	300	0.012%	0.000%
Cuba	3,264	1	-	-	-	-	388	-	-	388	0.015%	0.000%
Slovenia	3,535	296	-	-	-	-	43	-	-	43	0.002%	0.000%
Tunisia	2,996	291	-	-	-	-	220	-	-	220	0.008%	0.000%
Colombia	3,184	1	-	-	-	-	255	-	-	255	0.010%	0.000%
Kuwait	3,006	-	-	-	-	-	241	-	-	241	0.009%	0.000%
Monaco	7	3,348	-	-	-	-	30	-	-	30	0.001%	0.000%
Indonesia	2,951	136	-	-	-	-	128	-	-	128	0.005%	0.000%
Maldives	2,742	-	-	-	-	-	219	-	-	219	0.008%	0.000%

Tab. 4.8.3.2 – Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

	Exposures in the banking book		Exposures in the trading book		Exposures in securitisation		Own funds requirement				Weighting factors of own fund requirement	Counter-cyclical coefficient
	Exposure value under SA approach	Exposure value under AIRB approach	Sum of long and short positions	Exposure value under internal models	Exposure value under SA approach	Exposure value under AIRB approach	of which: generic credit exposures	of which: credit exposures of the trading book	of which: securitisation positions in the banking book	Total		
Breakdown by country												
Hungary	2,606	9	-	-	-	-	183	-	-	183	0.007%	0.000%
Viet nam	2,537	1	-	-	-	-	199	-	-	199	0.008%	0.000%
Finland	521	95	1,876	-	-	-	10	150	-	160	0.006%	0.000%
Jordan	2,393	29	-	-	-	-	192	-	-	192	0.007%	0.000%
Kenya	2,498	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Poland	1,701	539	-	-	-	-	115	-	-	115	0.004%	0.000%
Israel	1,476	360	210	-	-	-	116	17	-	133	0.005%	0.000%
Denmark	1,532	470	97	-	-	-	85	8	-	92	0.004%	0.000%
Egypt	1,811	203	-	-	-	-	101	-	-	101	0.004%	0.000%
Peru	1,871	1	-	-	-	-	104	-	-	104	0.004%	0.000%
Malaysia	1,874	22	-	-	-	-	78	-	-	78	0.003%	0.000%
San marino	560	1,256	-	-	-	-	34	-	-	34	0.001%	0.000%
Saudi Arabia	1,784	53	-	-	-	-	11	-	-	11	0.000%	0.000%
Sweden	720	291	711	-	-	-	18	24	-	42	0.002%	0.000%
Thailand	1,474	93	-	-	-	-	118	-	-	118	0.005%	0.000%
Czech republic	1,480	110	-	-	-	-	56	-	-	56	0.002%	0.500%
Costa rica	1,564	0	-	-	-	-	40	-	-	40	0.002%	0.000%
New zealand	963	377	-	-	-	-	70	-	-	70	0.003%	0.000%
Bangladesh	1,286	121	-	-	-	-	8	-	-	8	0.000%	0.000%
Kazakhstan	996	73	-	-	-	-	80	-	-	80	0.003%	0.000%
Hong kong	466	601	70	-	-	-	11	6	-	17	0.001%	1.000%
Bulgaria	804	276	-	-	-	-	13	-	-	13	0.001%	0.500%
Ecuador	1,075	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Serbia	27	952	-	-	-	-	9	-	-	9	0.000%	0.000%
Panama	10	47	786	-	-	-	1	63	-	64	0.002%	0.000%
Malta	150	709	-	-	-	-	22	-	-	22	0.001%	0.000%
Paraguay	894	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Nigeria	657	51	-	-	-	-	53	-	-	53	0.002%	0.000%
Benin	670	-	-	-	-	-	-	-	-	-	0.000%	0.000%
India	425	170	-	-	-	-	17	-	-	17	0.001%	0.000%
Iceland	531	-	-	-	-	-	42	-	-	42	0.002%	0.000%
Reunion	565	-	-	-	-	-	20	-	-	20	0.001%	0.000%
Slovakia	316	208	-	-	-	-	13	-	-	13	0.000%	1.000%
South africa	410	103	-	-	-	-	3	-	-	3	0.000%	0.000%
Cyprus	360	100	-	-	-	-	21	-	-	21	0.001%	0.000%
Oman	249	152	-	-	-	-	17	-	-	17	0.001%	0.000%
Bosnia and herzegovina	403	0	-	-	-	-	14	-	-	14	0.001%	0.000%
Venezuela	29	346	-	-	-	-	4	-	-	4	0.000%	0.000%
Mauritius	169	138	-	-	-	-	8	-	-	8	0.000%	0.000%
Congo, democratic republic of	2	293	-	-	-	-	5	-	-	5	0.000%	0.000%
Antigua and barbuda	1	295	-	-	-	-	2	-	-	2	0.000%	0.000%
Ghana	270	0	-	-	-	-	0	-	-	0	0.000%	0.000%
Rwanda	231	0	-	-	-	-	-	-	-	-	0.000%	0.000%
Lebanon	5	221	-	-	-	-	2	-	-	2	0.000%	0.000%
Bermuda	195	0	0	-	-	-	16	0	-	16	0.001%	0.000%
Latvia	178	0	-	-	-	-	14	-	-	14	0.001%	0.000%
Guatemala	164	-	-	-	-	-	13	-	-	13	0.001%	0.000%

Tab. 4.8.3.3 – Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

	Exposures in the banking book		Exposures in the trading book		Exposures in securitisation		Own funds requirement				Weighting factors of own fund requirement	Counter-cyclical coefficient
	Exposure value under SA approach	Exposure value under AIRB approach	Sum of long and short positions	Exposure value under internal models	Exposure value under SA approach	Exposure value under AIRB approach	of which: generic credit exposures	of which: credit exposures of the trading book	of which: securitisation positions in the banking book	**Total**		
Breakdown by country												
Uruguay	151	0	-	-	-	-	12	-	-	12	0.000%	0.000%
Lithuania	134	1	-	-	-	-	4	-	-	4	0.000%	0.000%
Greece	75	4	21	-	-	-	9	2	-	10	0.000%	0.000%
Singapore	1	116	0	-	-	-	1	0	-	1	0.000%	0.000%
Cambodia	102	-	-	-	-	-	8	-	-	8	0.000%	0.000%
Macao	-	115	-	-	-	-	1	-	-	1	0.000%	0.000%
Brunei darussalam	-	92	-	-	-	-	1	-	-	1	0.000%	0.000%
Curacao	-	0	83	-	-	-	0	1	-	1	0.000%	0.000%
Myanmar	77	0	-	-	-	-	2	-	-	2	0.000%	0.000%
Montenegro	67	0	-	-	-	-	5	-	-	5	0.000%	0.000%
Syrian arab republic	62	-	-	-	-	-	5	-	-	5	0.000%	0.000%
Albania	0	68	-	-	-	-	0	-	-	0	0.000%	0.000%
Iran (islamic republic of)	2	36	-	-	-	-	1	-	-	1	0.000%	0.000%
Senegal	28	1	-	-	-	-	2	-	-	2	0.000%	0.000%
Mongolia	25	-	-	-	-	-	2	-	-	2	0.000%	0.000%
Cameroon	-	17	-	-	-	-	1	-	-	1	0.000%	0.000%
Moldova, republic of	0	13	-	-	-	-	0	-	-	0	0.000%	0.000%
Ukraine	6	3	-	-	-	-	0	-	-	0	0.000%	0.000%
Holy see (vatican city state)	7	-	-	-	-	-	1	-	-	1	0.000%	0.000%
Sudan	6	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Cote d'ivoire	6	0	-	-	-	-	0	-	-	0	0.000%	0.000%
Pakistan	4	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Estonia	3	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Dominican republic	3	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Cape verde	3	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Ethiopia	3	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Bahrain	2	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Yemen	-	2	-	-	-	-	-	-	-	-	0.000%	0.000%
Belarus	2	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Azerbaijan	0	2	-	-	-	-	0	-	-	0	0.000%	0.000%
Congo	0	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Uganda	1	0	-	-	-	-	0	-	-	0	0.000%	0.000%
Libya	0	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Barbados	1	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Macedonia,the former yugoslav republ. of	-	1	-	-	-	-	0	-	-	0	0.000%	0.000%
Palestinian territory, occupied	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Djibouti	0	-	-	-	-	-	0	-	-	0	0.000%	0.000%
Turkmenistan	-	0	-	-	-	-	-	-	-	-	0.000%	0.000%
Bahamas	-	0	-	-	-	-	-	-	-	-	0.000%	0.000%
Totale	**13,650,991**	**70,441,349**	**6,357,179**	**-**	**2,881,721**	**-**	**2,481,883**	**47,582**	**45,459**	**2,584,924**	**99.996%**	

Liquidity Ratios and Leverage Ratio

With reference to the liquidity indicators, Liquidity Coverage Ratio and the Net Stable Funding Ratio, the observation period by the Supervisory Authorities began in March 2014. As of October 2015, the minimum obligatory requirement for the *Liquidity Coverage Ratio* came into force, with a level that gradually increases over the years (100% in 2018).

The *Liquidity Cover Ratio* was 196.7% as at 31 December 2020, well above the minimum required for the year 2020 (equal to 100%), an increase compared to December 2019 (152.4%).

The following table provides quantitative information on the LCR on the basis of the EBA Guidelines on liquidity coverage ratio disclosure, to supplement the liquidity risk management disclosure pursuant to article 435 of EU regulation no. 575/2013 (EBA/GL/2017/01). The values are calculated as the simple average of the end-of-month observations in the previous twelve months, when available, at the end of each quarter.

Tab. 4.9 – Liquidity Coverage Ratio (EU LIQ1)

	Currency and units (XXX million) Quarter ending on (DD Month YYY) Number of data points used in the calculation of averages	Total unweighted value (average)				Total weighted value (average)			
		Mar-20 12	Jun-20 12	Sep-20 12	Dec-20 12	Mar-20 12	Jun-20 12	Sep-20 12	Dec-20 12
Total high-quality liquid assets (HQLA)									
1	Total high-quality liquid assets (HQLA)					**25,383**	**25,556**	**26,047**	**26,844**
Deflussi di cassa									
2	Depositi al dettaglio e depositi della clientela di piccole imprese, di cui:	47,543	48,092	48,729	49,713	3,074	3,102	3,130	3,186
3	*Depositi stabili*	*37,721*	*38,205*	*38,805*	*39,628*	*1,886*	*1,910*	*1,940*	*1,981*
4	*Depositi meno stabili*	*9,822*	*9,887*	*9,924*	*10,085*	*1,188*	*1,191*	*1,190*	*1,205*
5	**Provvista (funding) all'ingrosso non garantita**	**20,732**	**21,439**	**22,588**	**23,589**	**8,385**	**8,959**	**9,836**	**10,507**
6	*Depositi operativi (tutte le controparti) e depositi all'interno di reti di banche cooperative*	*8,003*	*6,554*	*5,096*	*3,530*	*1,866*	*1,512*	*1,175*	*808*
7	*Depositi non operativi (tutte le controparti)*	*12,424*	*14,582*	*17,194*	*19,924*	*6,214*	*7,145*	*8,363*	*9,565*
8	*Titoli di debito non garantiti*	*305*	*302*	*298*	*135*	*305*	*302*	*298*	*135*
9	Provvista (funding) all'ingrosso garantita					403	390	328	252
10	Requisiti aggiuntivi	3,453	3,466	3,534	3,625	962	1,080	1,202	1,229
11	*Deflussi per operazioni in derivati e altri obblighi in materia di costituzione di garanzie reali (collateral)*	*839*	*849*	*855*	*856*	*677*	*772*	*855*	*856*
12	*Deflussi connessi alla perdita di finanziamenti su prodotti di debito*	*22*	*24*	*37*	*42*	*22*	*24*	*37*	*42*
13	*Linee di credito e di liquidità*	*2,592*	*2,593*	*2,642*	*2,727*	*264*	*284*	*310*	*331*
14	Altri obblighi contrattuali di finanziamento	2,715	2,921	2,990	2,992	1,624	1,643	1,474	1,180
15	Altri obblighi eventuali di finanziamento	19,254	22,718	22,844	23,128	1,298	1,499	1,618	1,690
16	**Totale dei Deflussi di cassa**					**15,746**	**16,673**	**17,589**	**18,045**
Afflussi di cassa									
17	Prestiti garantiti (ad es. pronti contro termine attivi)	3,230	3,712	4,226	5,352	128	134	143	67
18	Afflussi provenienti da esposizioni pienamente in bonis	2,516	2,483	2,409	2,303	1,360	1,340	1,303	1,249
19	Altri afflussi di cassa	5,018	4,791	4,464	4,114	1,064	1,019	947	886
EU-19a	(Differenza tra gli afflussi ponderati totali e i deflussi ponderati totali derivanti da operazioni in paesi terzi in cui vigono restrizioni al trasferimento o che sono denominate in valute non convertibili)					-	-	-	-
EU-19b	(Afflussi in eccesso da un ente creditizio specializzato connesso)					-	-	-	-
20	**Totale degli Afflussi di cassa**	10,764	10,985	11,099	11,769	2,551	2,493	2,394	2,202
EU-20a	*Afflussi totalmente esentati*	-	-	-	-	-	-	-	-
EU-20b	*Afflussi soggetti al massimale del 90%*	-	-	-	-	-	-	-	-
EU-20c	*Afflussi soggetti al massimale del 75%*	*10,610*	*10,832*	*10,970*	*11,717*	*2,551*	*2,493*	*2,394*	*2,202*
						Valore Corretto Totale			
21	**Riserva di Liquidità**					**25,383**	**25,556**	**26,047**	**26,844**
22	**Totale dei Deflussi di cassa netti**					**13,194**	**14,180**	**15,195**	**15,843**
23	**Coefficiente di Copertura della Liquidità - LCR (%)**					**197.95%**	**182.16%**	**172.86%**	**169.75%**

The Liquidity Coverage Ratio (LCR) is a short-term liquidity indicator used to assess the Group's liquidity profile. In 2020 the Group liquidity was characterized by the lack of signs of strain in the short term, with the LCR stable, exceeding 150%, well above the minimum limit of 100% provided for by the EU Regulatory requirements. In particular, the LCR grew by 44.3%, from 152.4% at the end of 2019 to 196.7% at the end of 2020. The trend of the regulatory liquidity indicators between 2019 and 2020 is mainly attributable to the benefits generated by the positive performance of commercial dynamics and by some specific events such as the completion of the spin-off transaction to AMCO and the placement of senior and subordinated bonds in institutional markets. In addition, refinancing operations with the ECB were renewed for an amount of TLTRO III of 24.0 €bn. These positive dynamics more than offset the cash outflows produced by the redemption of Guaranteed Government Bonds and the reduction of securities lending operations. These levels were stably maintained despite the methodological interventions made to the metrics for the disposal of the Excess Operational Deposit model, which led to a penalization of the indicator around -10%, and the implementation of the new dictates introduced as part of the regulatory review by the regulator, with a negative impact of less than -5%.

At the end of 2020, the Liquidity buffer shows a prevalence of available liquidity deriving from the reserve held with the ECB (84% of the total Liquidity Buffer) and a significant component of mainly consist of Italian and European (15%), government bonds listed on regulated markets and easily liquidated in the short term.

It should be noted that outflows relating to derivative positions and potential requests for collateral are not significant, in view of their impact on outflows is for both less than 5%.

On a monthly basis, the Group monitors the risk of concentration of sources of financial and commercial funding, with a particular focus on the details of the main non-retail counterparties. Concentration risk of the MPS Group's sources of funding is present and is linked to a significant depositor whose average balance is impacted by seasonal factors of the economic cycle. At the end of December 2020, in accordance with what is monitored through the Additional Liquidity Monitoring Metrics (ALMM) regulatory reporting, funding through unsecured channels amounts to roughly 66% of the total, of which 11% relating to financial non-retail counterparties and 18% relating to non-financial non-retail counterparties. In this last category, the main counterparty is *"CSEA Cassa per i Servizi Energetici e Ambientali"*, with an overall exposure equal to 16% of the total of non-financial non-retail counterparties (corresponding to 4% of the total funding obtained through unsecured channels).

It must be stressed that the liquidity reserves in currencies other than the Euro, as well as the outflows and inflows in foreign currency, components having an incidence below 1% each, are marginal for the MPS Group and do not provoke currency misalignments in the LCR.

Leverage Ratio

In addition to the system of capital requirements aimed at covering credit, counterparty, market, operational, CVA and regulatory risks, it is expected that the current regulatory framework will monitor a limit on leverage with a twofold purpose to limit the accumulation of debt within the banking industry so as to avoid destabilizing deleveraging process which may harm the financial system and the economy in general, and to strengthen the system of capital requirements associated with risk with a simple backstop measure that is not based on risk profile.

As required by the Regulation EU 62/2015, the Leverage Ratio is calculated as a ratio between Tier1 and a denominator that is based on the non-risk weighted assets (including off-balance sheet exposures) calculated at the end of the quarter. The exposures must be reported net of the regulatory adjustments included in the calculation of T1 in order to avoid any double counting. At present, the minimum thresholds for the Leverage Ratio have not yet been established by the Supervisory Authorities. However, as of 1 January 2015, quarterly disclosure has become obligatory in addition to the disclosure requirement already in force. Moreover, as provided for by Commission Implementing Regulation (EU) 2016/200 of 15 February 2016, banks publish this disclosure as of 16 February 2016, the date following this regulation's publication in the Official Journal of the European Union.

The Group's leverage ratio was 4.39% as at 31 December 2020. Using regulatory capital calculated by applying the rules established for full implementation, the ratio stands at 3.59%.

In accordance with public disclosure requirements, the data necessary for its calculation is provided below.

The templates used to report the information are those provided for by the ITS on Disclosure (*see* "EBA FINAL draft Implementing Technical Standards on disclosure of the leverage ratio under Article 451(2) of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR) - Second submission following the EC's Delegated Act specifying the LR" - link) published by the EBA on 15/06/2015 and included in the Commission Implementing Regulation (EU) 2016/200 of 15 February 2016.

The tables below show the financial leverage ratio as at 31 December 2020 as well as a breakdown of the total exposure measure in the main categories, as required by articles 451(1)(a), 451(1)(b) and 451(1)(c). The figures shown relate to the calculation of the leverage ratio according to applicable transitional provisions for reporting purposes.

Tab. 4.10.1 – Financial leverage: LR Sum (Summary reconciliation of accounting assets and leverage ratio exposure)

		Dec-20	Dec-19
1	Total assets as per published financial statements	125,416,476	133,200,119
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-	-
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013 "CRR")	-	-
4	Adjustments for derivative financial instruments	1,451,807	1,491,015
5	Adjustments for securities financing transactions "SFTs"	1,061,920	1,311,026
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	10,939,136	7,424,739
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-	-
EU-6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	-	-
7	Other adjustments	-885,817	-2,329,202
8	**Total leverage ratio exposure**	**137,983,522**	**141,097,698**

"Other adjustments" includes 345.211 €/thousand of "Deductions from the Capital Class 1 related to balance sheet assets", present at the row 2 of Table 4.10.2.

Tab. 4.10.2 – Financial leverage: LR Com (Leverage ratio common disclosure)

		Dec-20	Dec-19
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	116,496,537	124,556,209
2	(Asset amounts deducted in determining Tier 1 capital)	345,211	-456,970
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**116,841,748**	**124,099,239**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1,303,307	1,257,221
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	1,451,807	1,491,015
EU-5a	Exposure determined under Original Exposure Method	-	-
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-523,259	-935,966
8	(Exempted CCP leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	3,576,674	3,827,338
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-144,994	-376,120
11	**Total derivative exposures (sum of lines 4 to 10)**	**5,663,536**	**5,263,487**
	Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	3,477,183	2,999,206
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
14	Counterparty credit risk exposure for SFT assets	1,061,920	1,311,026
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	-	-
15	Agent transaction exposures	-	-
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	-	-
16	**Total securities financing transaction exposures (sum of lines 12 to 15a)**	**4,539,103**	**4,310,233**
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	39,449,702	34,744,247
18	(Adjustments for conversion to credit equivalent amounts)	-28,510,566	-27,319,508
19	**Other off-balance sheet exposures (sum of lines 17 to 18)**	**10,939,136**	**7,424,739**
	Exempted exposures in accordance with CRR Article 429 (7) and (14) (on and off balance sheet)		
EU-19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	-
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	-	-
	Capital and total exposures		
20	Tier 1 capital	6,053,319	8,620,324
21	**Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**137,983,522**	**141,097,698**
	Leverage ratio		
22	Leverage ratio	4.39%	6.11%
	Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional disposition	Transitional disposition
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	-	-

Tab. 4.10.3 – Financial leverage: LR Spl (Split-up of on balance sheet exposures, excluding derivatives, SFTs and exempted exposures)

		Dec-20	Dec-19
EU-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	**115,902,111**	**123,508,840**
EU-2	Trading book exposures	5,510,284	7,261,267
EU-3	Banking book exposures, of which:	110,391,827	116,247,573
EU-4	*Covered bonds*	*691,403*	*829,546*
EU-5	*Exposures treated as sovereigns*	*21,496,638*	*24,717,070*
EU-6	*Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns*	*1,514,034*	*1,751,847*
EU-7	*Institutions*	*5,891,897*	*5,523,456*
EU-8	*Secured by mortgages of immovable properties*	*37,480,285*	*37,701,216*
EU-9	*Retail exposures*	*9,019,835*	*8,782,580*
EU-10	*Corporate*	*19,319,549*	*19,880,411*
EU-11	*Exposures in default*	*2,143,901*	*6,246,493*
EU-12	*Other exposures (eg equity, securitisations, and other non-credit obligation assets)*	*12,834,286*	*10,814,954*

Process used to manage the risk of excessive leverage

(in accordance with article 451(1) letter d) of the CRR)

The Group's Risk Appetite Framework (RAF) constitutes the basic risk management framework in the Montepaschi Group. The RAF is governed at Group level by a regulatory framework that establishes a system of governance, processes, tools and procedures for fully managing the Group's risk. Leverage risk is included in the RAF and is therefore subject to the control procedures contained therein. The Leverage Ratio is one of the Key Risk Indicators monitored within the RAF for 2020. As at 31 December 2020, the Group recorded a contraction in the financial leverage indicator linked to the decrease in both, the numerator (Tier 1) and denominator (total exposures) compared with 31/12/2019.

5. Credit Risk

5.1 Credit Risk: general disclosure

The MPS group gives special attention to the management and the measurement of Credit Risk, which represents the greatest risk to which the Group is exposed, accounting for approximately 71% of total capital requirements. The main objective of the Credit Risk Management function is to promote a culture of "responsible lending" within the Group and pursue a sustainable growth in lending transactions that is in line with risk appetite and value creation. The Group's strategies in the area of risk management are aimed at limiting the economic impact from defaulting loans and containing the cost of credit. The credit risk management function is involved in defining credit policy guidelines by identifying the customer segments with greater opportunities from risk-return perspective, promoting risk diversification, limiting the concentration of risk exposure in single business groups/sectors and geographical areas. The function also defines the supports available to Credit disbursement strategies.

The use and allocation of ratings is crucial, since they are the synthetic measurement of a customer's creditworthiness both during the loan disbursement and monitoring processes. This forms the basis of the preliminary procedure that is followed as a loan proposal is processed and then subsequently monitored.

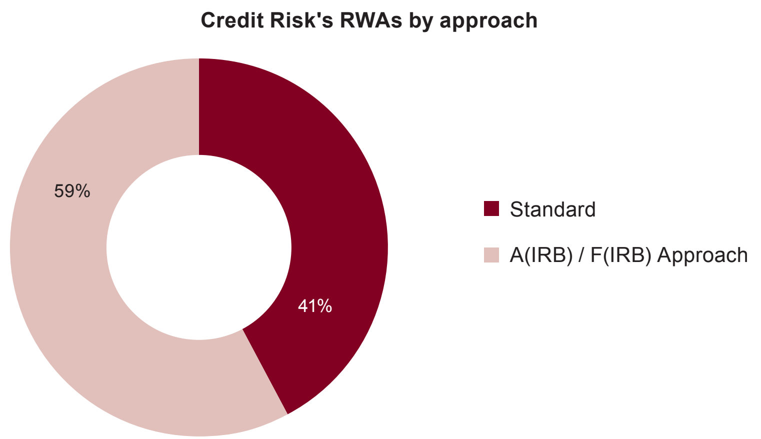
The assignment of a rating to each borrower means that borrowers can be classified into actual levels of risk and that both an overall or broken-down objective assessment of risk components may be made; this system, therefore, provides the basis of information for supporting both strategic decisions and the ordinary management of risk positions. Credit policy guidelines are thus provided by the sales network according to customer segments, rating categories, business sector, Regional Area, loan type and types of collateral used.

In addition, operational guidelines are structured into quantitative and qualitative objectives to develop and reclassify the loan portfolio, according to business sector and regional units. The Credit Risk Management function is also involved in the monitoring phase and verifies that the Network Structures achieve their goals of credit quality and alignment with established benchmarks, identifying the appropriate remedial actions to be implemented, reviewing objectives and, on a more general level, analysing trends in the quality of the loan portfolio in terms of market/product/customer segment and related causes. For a detailed description of the tasks of the Credit Risk function, see Chapter 1.

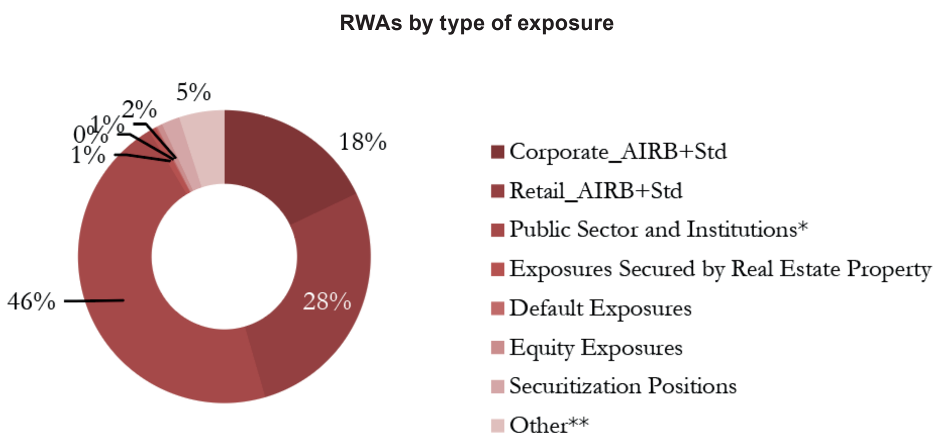
As concerns capital requirements, for credit risks the Group uses the Advanced Internal Rating Based (AIRB) method with reference to the "Credit Exposures to Retail" and

"Credit Exposures to Entities" regulatory portfolios. The scope of application of the AIRB method currently includes the Parent Company Banca MPS, MPS Capital Services Banca per le Imprese and MPS Leasing & Factoring. For the remaining portfolios and Group entities, capital requirements relative to credit risks are calculated according to the standard method.

RWAs by credit risk show a prevalence of exposures treated under the advanced approach (59% over those subject to the Standardised Approach (41%).



An analysis by type of exposure reveals that 66.3% of Credit Risk refers to the Corporate and Retail portfolios. The remaining 33.7% is mainly concentrated in the Public Sector and Institutions (10.8%).



* *Includes the following portfolios: Central Governments or Central Banks, Regional Governments or Local Authorities, Public sector entities, Multilateral Development Banks, International Organisations , and*

** *Includes the following portfolios: Exposures associated with a particularly high risk, Exposures in the form of covered bonds, Exposures to institutions and corporates with a short term credit assessment, Exposures to CIUs, Exposures to Central Counterparties in the form of pre funded contributions to the gu arantee fund, Other exposures*

The following table shows a breakdown of credit and counterparty exposures and RWAs by approach (Standard/ AIRB). In compliance with regulatory standards, in the case of the standard approach, the EAD value corresponds to the value of the exposure, which takes account of the prudential filters, risk mitigation techniques and credit conversion factors. In the case of the internal ratings- based approach, the EAD value reported corresponds to the "Exposure At Default" calculated according to the rules of prudential supervision and therefore expressed gross of value adjustments and without the impacts from risk mitigation techniques which, in the case of exposures subject to an internal models-based approach, are directly included in the weighting factor applied. Instead, the EAD value takes into account the credit conversion factors for guarantees issued and commitments to disburse funds.

Tab. 5.1.1 – EAD and RWA overview between Credit Risk and Counterparty Risk

	Dec-20		Dec-19			
	EAD	RWA	EAD	RWA	Δ EAD	Δ RWA
Standard Approach						
Total standard approach	**78,773,295**	**14,451,537**	**56,128,250**	**16,756,009**	**22,645,044**	**-2,304,471**
of which: Counterparty Risk	*3,656,125*	*1,092,606*	*3,301,542*	*1,064,236*	*354,583*	*28,370*
IRB approach						
Total IRB approach	**63,978,497**	**20,958,095**	**75,048,349**	**28,480,112**	**-11,069,851**	**-7,522,017**
of which: Counterparty Risk	*1,477,373*	*275,312*	*759,357*	*242,170*	*718,016*	*33,143*
Total	**142,751,792**	**35,409,632**	**131,176,599**	**45,236,121**	**11,575,193**	**-9,826,489**
of which: Counterparty Risk	*5,133,499*	*1,367,919*	*4,060,900*	*1,306,406*	*1,072,599*	*61,513*

Regarding the main changes compared to December 2019, please refer to "Chapter 1 - Risk management objectives and policies - Executive Summary". The following table shows a breakdown of exposures and RWAs by approach (Standard/AIRB) and by regulatory portfolio.

Tab. 5.1.2 – Exposure and RWA Distribution of Credit and Counterparty Risk

Regulatory portfolios	Dec-20		Dec-19	
Standardised approach	EAD	RWA	EAD	RWA
Exposures to central governments or central banks	54,434,800	1,325,347	29,868,127	1,746,118
Exposures to regional governments or local authorities	1,399,808	278,537	1,542,472	308,211
Exposures to public sector entities	338,050	312,490	403,830	362,070
Exposures to multilateral development banks	71,544	-	111,402	-
Exposures to International organisations	-	-	-	-
Exposures to institutions	9,280,870	1,924,826	9,568,602	2,024,563
Exposures to corporates	3,106,989	2,608,802	3,467,782	3,328,505
Retail exposures	662,820	455,366	858,019	592,771
Exposures secured by mortgages on immovable property	1,174,903	434,470	1,477,102	557,071
Exposures in default	247,523	264,462	424,348	455,305
Exposures associated with high risk	228,996	343,494	331,285	496,928
Exposures in the form of covered bonds	686,190	82,476	705,148	85,542
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-
Exposures to collective investments undertakings	227,066	227,066	229,524	229,524
Equity exposures	860,723	1,641,002	1,115,714	2,243,660
Other exposures	5,964,323	4,507,154	6,015,995	4,302,804
Securitization positions	88,688	28,599	8,898	8,898
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	17,448	-	14,039
Total standardised approach	**78,773,295**	**14,451,537**	**56,128,250**	**16,756,009**
AIRB approach				
Exposures to or secured by corporates:	22,494,584	13,477,691	31,169,669	19,732,305
- SMEs	10,712,577	5,321,775	16,731,364	8,963,341
- Other companies	10,371,342	6,991,171	12,613,289	9,254,542
- Specialized lending	1,410,664	1,164,745	1,825,016	1,514,422
Retail exposures:	38,697,224	6,940,762	43,783,366	8,600,843
- secured by real estate: SMEs	4,578,389	1,453,987	5,801,907	1,854,434
- secured by real estate: Individuals	27,629,872	3,447,221	27,907,035	3,654,559
- Qualifying revolving	78,648	5,869	93,584	7,469
- Other retail exposures: SMEs	5,173,096	1,784,790	8,252,376	2,791,655
- Other retail exposures: Individuals	1,237,219	248,895	1,728,465	292,725
- Securitization positions	2,786,690	539,642	95,314	146,964
Total AIRB approach	**63,978,497**	**20,958,095**	**75,048,349**	**28,480,112**
Total Credit and Counterparty Risk	**142,751,792**	**35,409,632**	**131,176,599**	**45,236,121**

** Securitization positions subject to Standard approach include securitizations under the SEC-ERBA and SEC-SA.*
*** Securitization positions subject to AIRB approach include securitizations under the SEC-IRBA*

The following table shows the total and the average amount of net exposures over the period by exposure class.

Tab. 5.1.3 (EU CRB-B) – Total and average net amount of exposures

		Net value of exposures at the end of the period	Average net exposures over the period
3	Exposures to or secured by corporates:	22,494,584	29,194,139
4	*of which Specialized lending-Slotting criteria*	*1,410,664*	*1,660,741*
5	of which SME	10,712,577	14,942,773
	of which Other companies	10,371,342	12,590,625
6	Retail exposures:	38,697,224	42,231,981
7	- secured by real estate	32,208,260	33,469,832
8	*secured by real estate: SMEs*	*4,578,389*	*5,444,346*
9	*secured by real estate: Individuals*	*27,629,872*	*28,025,487*
10	- Qualifying revolving	78,648	70,863
11	- Other retail exposures	6,410,315	8,691,286
12	*Other retail exposures: SMEs*	*5,173,096*	*7,150,156*
13	*Other retail exposures: Individuals*	*1,237,219*	*1,541,130*
	Securitization positions	2,786,690	721,695
15	**Total AIRB approach**	**63,978,497**	**72,147,815**
16	Exposures to central governments or central banks	54,434,800	40,114,040
17	Exposures to regional governments or local authorities	1,399,808	1,524,510
18	Exposures to public sector entities	338,050	424,665
19	Exposures to multilateral development banks	71,544	72,793
20	Exposures to international organisations	-	-
21	Exposures to institutions	9,280,870	9,269,105
22	Exposures to corporates	3,106,989	3,568,794
24	Retail exposures	662,820	690,383
26	Exposures secured by mortgages on immovable property	1,174,903	1,217,242
28	Exposures in default	247,523	336,062
29	Exposures associated with particularly high risk	228,996	247,364
30	Exposures in the form of covered bonds	686,190	703,173
31	Exposures to institutions and corporates with a short-term credit assessment	-	-
32	Exposures to collective invesments undertakings	227,066	185,910
33	Equity exposures	860,723	988,691
34	Other exposures	5,964,323	6,126,226
	Securitization positions	88,688	47,195
	Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-
35	**Total standardised approach**	**78,773,295**	**65,516,152**
36	**Total**	**142,751,792**	**137,663,967**

Column b shows the average net exposure in the observation period, i.e. the average of the values observed at the end of each quarter during the observation period.

** Securitization positions subject to Standard approach include securitizations under the SEC-ERBA and SEC-SA.*
*** Securitization positions subject to AIRB approach include securitizations under the SEC-IRBA.*

The tables provided below show the breakdown of exposures, with the IRB and the standard method, by geographical area, duration and exposure class.

Tab. 5.1.4 (EU CRB-C) – Geographical breakdown of exposure

		Net Value			
		Italy	Other European Countries	Non european Conuntries	Total
1	Central governments or central banks	-	-	-	-
2	Institutions	-	-	-	-
3	Corporates	21,083,920	-	-	21,083,920
4	Retail	38,697,224	-	-	38,697,224
5	Equity	-	-	-	-
6	**Total IRB approach**	**59,781,143**	**-**	**-**	**59,781,143**
7	Central governments or central banks	54,236,744	-	8,467	54,245,211
8	Regional governments or local authorities	1,399,808	-	-	1,399,808
9	Public sector entities	338,093	-	-	338,093
10	Multilateral development banks	71,544	-	-	71,544
11	International Organisations	-	-	-	-
12	Institutions	9,022,311	-	80,337	9,102,648
13	Corporates	2,835,031	-	51,328	2,886,359
14	Retail	557,916	-	-	557,916
15	Secured by mortgages on immovable property	982,884	-	-	982,884
16	Exposures in default	218,511	-	-	218,511
17	Items associated with particularly high-risk	228,996	-	-	228,996
18	Covered bonds	686,190	-	-	686,190
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-
20	Collective investments undertakings	227,066	-	-	227,066
21	Equity exposures	848,665	-	-	848,665
22	Other exposures	5,944,980	-	1,647	5,946,628
23	**Total standardised approach**	**77,598,739**	**-**	**141,779**	**77,740,518**
24	**Total as at 31/12/2020**	**137,379,882**	**-**	**141,779**	**137,521,661**

The total exposures under IRB approach are net of specialized lending exposures and securitization positions. The total exposures under standardised approach do not contain off-balance –sheet exposures. In this table, the net value corresponds to EAD.

Tab. 5.1.5 – (EU CRB-E) – Maturity of exposures

		Valore netto dell'esposizione					
		On demand	< = 1 year	> 1 year < = 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks		-				-
2	Institutions		-				-
3	Corporates			41,503,976			41,503,976
4	Retail		49,558,418				49,558,418
5	Equity						-
6	**Total IRB approach**	**-**	**49,558,418**	**41,503,976**	**-**	**-**	**91,062,395**
7	Central governments or central banks					43,032,158	43,032,158
8	Regional governments or local authorities					2,125,018	2,125,018
9	Public sector entities					653,464	653,464
10	Multilateral development banks					86,544	86,544
11	International organisations					-	-
12	Institutions					44,769,367	44,769,367
13	Corporates					5,637,644	5,637,644
14	Retail					1,704,459	1,704,459
15	Secured by mortgages on immovable property					1,182,723	1,182,723
16	Exposures in default					523,194	523,194
17	Items associated with particularly high risk					372,380	372,380
18	Covered bonds					686,190	686,190
19	Claims on institutions and corporates with a short-term credit assessment					-	-
20	Collective investments undertaking					423,606	423,606
21	Equity exposures					860,723	860,723
22	Other exposures					5,952,851	5,952,851
23	**Total standardised approach**	**-**	**-**	**-**	**-**	**108,010,322**	**108,010,322**
24	**Total**	**-**	**49,558,418**	**41,503,976**	**-**	**108,010,322**	**199,072,717**

The figures shown in the table under IRB approach do not include specialised lending-slotting criteria. Net exposure value is defined as the difference between the nominal value and the value adjustments.

5.2 Credit Risk: Standard approach

In 2020, the Montepaschi Group uses the following official rating agencies for legal entities not subject to AIRB validation as well as for statutory portfolios, for which the advanced internal rating system to calculate capital absorption on credit risk is not used, to measure the level of reliability of different borrowers:

- Standard & Poor's;
- Moody's Investor Service;
- Fitch Rating.

When determining capital requirements, it should be noted that if there are two evaluations of the same customer, the more conservative one is adopted. In the case of three evaluations, the intermediate is used.

Regarding the disclosure on information on association of external rating of each nominated ECAI or ECA, please note that the Group uses the tables provided by the Commission Implementing Regulation (EU) 2016/1799 of 7 October 2016 as subsequently amended, and by the Commission Implementing Regulation (EU) 2016/1801 of 11 October 2016.

At present the standard approach is applied to all portfolios and entities of the Group with the exception of the portfolios, exposures to corporates and retail exposures, belonging to the following entities:

- Banca Monte dei Paschi di Siena
- MPS Capital Services Banca per le Imprese
- MPS Leasing & Factoring

for which the advanced IRB model is adopted, details of which are described in paragraph 5.3.

The table below summarises the list of ECAIs (External Credit Assessment Institutions) and ECAs (Export Credit Agencies) used in the standardised approach as well as the portfolios of exposures in which the ratings of the exposures themselves have been applied.

Portfolio	ECA/ECAI	*Rating characteristics* [a]
Exposures to governments and central banks	✓ Standard and Poor's Rating ✓ Moody's Investor Services ✓ Fitch Ratings	*Solicited and Unsolicited*
Exposures to regional governments or local authorities		
Exposures to public sector entities		
Exposures to multilateral development banks		
Exposures to institutions		
Exposures to corporates		
Exposures in the form of units or shares in collective investment undertakings ('CIUs')		
Items representing securitization positions		
Exposures in the form of covered bonds		

(a)
- ***solicited rating:*** *a rating assigned for a fee following a request from the entity evaluated. Ratings assigned without such a request shall be treated as equivalent to solicited ratings if the entity had previously obtained a solicited rating from the same ECAI;*
- ***unsolicited rating****: a rating assigned without a request from the entity evaluated and without payment of a fee.*

Extension of issuer and issue credit assessment to comparable assets not included in the regulatory trading portfolio

In accordance with EU Regulation 575/2013 (CRR), a set of criteria – as summarised below – has been established for the use of issue and issuer credit when assessing the risk of exposures and the risk mitigation by the use of guarantees. In order to assess the risk weight to be assigned to the exposures (in general for all regulatory portfolios), the rules provide for the priority use of the issue rating. Where the issue rating does not exist and where the conditions laid down by the Regulation are met, the issuer rating is used.

Quantitative disclosure

The table below shows the details of the banking Group's exposures subject to credit risk – standard approach, determined according to the rules of Prudential Supervision and including the effects from risk mitigation techniques (netting agreements, guarantees, etc.).

The quantitative disclosures in this Section complement those provided in the section on Risk mitigation techniques. In fact, each regulatory portfolio provided for by regulations under the standard approach is broken down as follows:

- amount of on- and off-balance exposures, "without" the risk mitigation (Exposure before CRM), which does not take into account the decrease in exposure arising from application of collateral and guarantees; in the case of guarantees, which transfer risk in respect of the guaranteed portion, reference is made to the guarantor's regulatory portfolios and weightings, while as to the residual exposure, reference is made to the guaranteed party's information;
- amount of the same exposures "with" the risk mitigation effect (Exposure after CRM), i.e. net of the guarantees mentioned in the previous point, thus the difference between exposures "with" and "without" credit risk mitigation represents the amount of approved collateral, disclosed also in the section on Risk mitigation techniques.

Tab. 5.2.1 – Standard approach: Ante and Post CRM Exposure Value

Regulatory Portfolio (Standard Approach)	Dec-20 Ante CRM Exposure	Dec-20 Post CRM Exposure	Dec-20 Credit Risk Mitigation Techniques	Dec-19 Ante CRM Exposure	Dec-19 Post CRM Exposure	Dec-19 Credit Risk Mitigation Techniques
Exposures to central governments or central banks	54,758,159	54,758,159	-	29,994,417	29,994,417	0
Exposures to regional governments or local authorities	2,166,115	2,166,115	-	2,302,900	2,302,900	-
Exposures to public sector entities	653,501	638,532	-14,969	654,231	639,387	-14,844
Exposures to multilateral development banks	86,544	86,544	-	126,402	126,402	-
Exposures to international organisations	-	-	-	-	-	-
Exposures to institutions	45,981,804	12,029,038	-33,952,766	40,996,762	12,406,244	-28,590,518
Exposures to corporates	5,372,780	4,846,205	-526,576	5,962,470	5,305,353	-657,117
Retail exposures	1,546,511	1,517,294	-29,217	1,888,520	1,852,477	-36,043
Exposures secured by mortgages on immovable property	1,177,467	1,177,467	-	1,482,948	1,482,928	-20
Exposures in default	441,824	440,570	-1,254	618,177	612,426	-5,751
Exposures associated with particularly high risk	269,123	268,601	-521	370,168	367,909	-2,258
Exposures in the form of covered bonds	686,190	686,190	-	705,148	705,148	-
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Exposures to collective investments undertakings	423,606	232,412	-191,194	444,617	303,701	-140,916
Equity exposures	860,723	860,723	-	1,115,714	1,115,714	-
Other exposures	5,964,328	5,964,328	-	6,016,015	6,016,015	-
Items representing securitization positions	2,895,818	2,895,818	-	8,898	8,898	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-
Total standardised approach	**123,284,494**	**88,567,998**	**-34,716,497**	**92,687,387**	**63,239,920**	**-29,447,468**

**In the current period, the entire amount of securitizations is considered, without distinction of method*

The table shows the Banking Group's exposures reported by regulatory exposure classes and also contains off-balance sheet exposures relating to guarantees and commitments before the application of credit conversion factors (CCF).

As at 31 December 2020, the total amount of exposures deducted from Funds came to EUR 743.3 million. The exposures reported in the table 5.2.2 also include the off balance-sheet exposures relating to guarantees and commitments (including undrawn credit lines) subsequent to the application of the Credit Conversion Factors (CFFs) required by prudential regulations. The off-balance sheet exposures in relation to guarantees and commitments are disclosed side by side with the counterparty weighting factor. The exposure value shown in the tables of this section is stated net of adjustments in accordance with the prudential regulations. Reported below are the Post CRM exposures broken down by weighting factor.

Tab. 5.2.2 – Standard approach: Distribution in classes of creditworthiness (EAD post CRM)

Regulatory Portfolio (Standardised approach)	Classes of credit worthiness (Weighting Factors)								Total
	0%	Until 20%	35%	50%	70%-100%	150%	225%-250%	1250%	
Exposures to central governments or central banks	53,415,225	-	-	30,438	775,100	-	214,038	-	54,434,800
Exposures to regional governments or local authorities	-	1,399,808	-	-	-	-	-	-	1,399,808
Exposures to public sector entities	-	31,951	-	-	306,099	-	-	-	338,050
Exposures to multilateral development banks	71,544	-	-	-	-	-	-	-	71,544
Exposures to international organisations	-	-	-	-	-	-	-	-	-
Exposures to institutions	42,678	7,270,401	-	1,629,165	338,626	-	-	-	9,280,870
Exposures to corporates	-	340,278	-	111,378	2,642,242	13,090	-	-	3,106,989
Retail exposures	-	-	1,401	-	661,419	-	-	-	662,820
Exposures secured by mortgages on immovable property	-	-	824,826	350,077	-	-	-	-	1,174,903
Exposures in default	-	-	-	-	213,645	33,878	-	-	247,523
Exposures associated with particularly high risk	-	-	-	-	-	228,996	-	-	228,996
Exposures in the form of covered bonds	-	683,139	-	3,051	-	-	-	-	686,190
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
Exposures to collective investments undertaking	-	-	-	-	227,066	-	-	-	227,066
Equity exposures	-	-	-	-	340,537	-	520,186	-	860,723
Other exposures	855,348	754,763	-	384	4,349,465	4,363	-	-	5,964,323
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-	-	-	-
Total as at 31/12/2020	**54,384,795**	**10,480,340**	**826,227**	**2,124,493**	**9,854,201**	**280,327**	**734,224**	**-**	**78,684,607**
Total as at 31/12/2019	**29,660,453**	**11,056,877**	**1,048,931**	**2,058,145**	**10,806,091**	**445,682**	**1,052,072**	**-**	**56,128,250**

The Table shows the Banking Group's exposures reported by regulatory exposure classes and also contains off-balance sheet exposures relating to guarantees and commitments post application of credit conversion factors (CCF). The table above does not include securitization exposures, of which 76,565 €/th are subject to SEC-SA and 12,122 €/th are subject to SEC-ERBA.

Tab. 5.2.3 (EU CR5) – Standardised approach

	Exposures classes (Standard Approach)	Classes of credit worthiness (Weighting Factors)																
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	70-100%	150%	225-250%	370%	1250%	Deductes	Total
1	Central governments or central banks	53,414,378	-	-	-	-	-	30,438	-	-	773,648	773,648	-	214,038	-	-	178,425	54,432,502
2	Regional governments or local authorities	-	-	-	-	1,387,952	-	-	-	-	-	-	-	-	-	-		1,387,952
3	Public sector entities	-	-	-	-	31,949	-	-	-	-	300,456	300,456	-	-	-	-		332,405
4	Multilateral development banks	71,544	-	-	-	-	-	-	-	-	-	-	-	-	-	-		71,544
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
6	Institutions	42,678	2,299,031	16,311	-	2,806,843	-	493,337	-	-	318,281	318,281	-	-	-	-		5,976,482
7	Corporates	-	-	-	-	340,278	-	109,432	-	-	2,405,653	2,405,653	13,090	-	-	-		2,868,453
8	Retail	-	-	-	-	-	1,401	-	-	661,265	-	661,265	-	-	-	-		662,666
9	Secured by mortgages on immovable property	-	-	-	-	-	824,826	350,077	-	-	-	-	-	-	-	-		1,174,903
10	Exposures in default	-	-	-	-	-	-	-	-	-	213,645	213,645	33,878	-	-	-		247,523
11	Higher-risk categories	-	-	-	-	-	-	-	-	-	-	-	228,996	-	-	-		228,996
12	Covered bonds	-	-	-	556,774	126,365	-	3,051	-	-	-	-	-	-	-	-		686,190
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
14	Collective investment undertakings	-	-	-	-	-	-	-	-	-	133,820	133,820	-	-	-	-		133,820
15	Equity	-	-	-	-	-	-	-	-	-	340,537	340,537	-	520,186	-	-	499,022	860,723
16	Other items	855,348	-	-	-	754,763	-	384	-	-	4,349,465	4,349,465	4,363	-	-	-		5,964,323
17	**Total as at 31/12/2020**	**54,383,949**	**2,299,031**	**16,311**	**556,774**	**5,448,150**	**826,227**	**986,718**	**-**	**661,265**	**8,835,505**	**9,496,770**	**280,327**	**734,224**	**-**	**-**	**677,447**	**75,028,482**
18	**Total as at 31/12/2019**	**29,659,620**	**1,783,766**	**50,121**	**563,893**	**6,808,269**	**1,048,931**	**914,753**	**-**	**857,946**	**9,632,764**	**10,490,710**	**445,677**	**1,052,072**	**-**	**-**	**516,945**	**52,817,810**

The exposure shown in the table does not include the counterparty credit risk (CCR). The deducted items include exposures required to be deducted in accordance with Part Two of the CRR and they are not included in the Total column.

5.3 Credit Risk: use of the AIRB approach

With decree no. 647555 of 12 June 2008, the bank of Italy authorised the Montepaschi Group to use *Advanced Internal Rating Based* (AIRB) systems to calculate the capital requirements for credit and operational risk. Under AIRB approach the following regulatory values are estimated internally:

– PD (*Probability of Default*): Likelihood of transferring from a performing status to that of nonperforming over a one-year time horizon.
– LGD (*Loss Given Default):* Percentage of loss in the event of default.
– EAD (*Exposure at default*): Amount of exposure at the time of default.

In particular, whereas the Montepaschi Group uses the standard approach ratios for Exposure at default (EAD) pending validation by the Supervisory Authorities, the Group is instead authorised to use:

- Internal Probability of Default (PD) estimates, for the portfolio of exposures to corporates and retail exposures;
- internal *Loss Given Default* (LGD) estimates for the portfolio of exposures to corporates and retail exposures.

For portfolios other than those mentioned above, the standard approach is used.

As for legal entities, the scope of application of the authorised approaches shall be the following:

- AIRB: Banca Monte dei Paschi di Siena, MPS Capital Services, Banca Antonveneta, MPS Leasing & Factoring;
- the remaining legal entities of the Montepaschi Group use the standard approach.

The organization of the Parent Company provides that the structure responsible for the development of models (Risk Management Function - Lending Risk Officer Area) is included within the Chief Risk Officer (CRO) Department. These functions, however, remain separate from the structures responsible for approving loans (Commercial Departments).

The Lending Risk Area operates independently from the Internal Validation Function. The autonomy and independence validation function, organisationally separate from the credit risk control unit is, in accordance with the regulatory technical standards (EBA/RTS/2016/03) ensured by the Internal Audit Function as part of the annual review on Internal Validation function.

The organizational structure follows a three-level approach: the credit risk control unit is responsible for defining the rules and methodologies for determining the risk measures; the Internal Validation function is responsible for verifying the alignment of the risk measurement systems with the company policies and the regulations of the Supervisory Authority; the Internal Audit Function evaluates the reliability and effectiveness of the credit risk measurement process, the model's outputs as well as verifies the validation process of the rating system.

In compliance with the requirements

of autonomy and independence of each participating function, there is also a Function Coordination Committee in place with control responsibilities. The Committee coordinates methods and timing for planning and reporting to the Corporate Bodies and project initiatives connected with the Internal Control System, and share areas for improvement identified by all Functions with control responsibilities as well as the Supervisory Authorities.

Internal rating system architecture

The Montepaschi Group began using internal rating systems for the measurement of credit risk in 2002. The first Probability of default (PD) models were developed for the small and medium-sized enterprises (SMEs) and *Small businesses* (SB); subsequently, rating models were also estimated for other types of exposure and a *Loss Given Default* (LGD) estimation model was implemented.

Finally, an Exposure at Default (EAD) estimation model was implemented and subsequently updated, as with other internal models pending validation by the Supervisory Authorities. The rating system has thus become, over time, one of the main elements of assessment for all units involved in the credit industry, both at Head Office level (risk management, Chief Financial Officer, General management, Risk Management committee, board of directors) and at outer level (credit management area, rating units and relationship managers).

Thanks to the experience accumulated, the Montepaschi Group has decided to further invest in internal rating systems, starting, at the beginning of 2006, with the Basel II Project aimed at improving the existing internal procedures by adjusting them to the new prudential supervisory regulations for banks which came into force on January 1, 2007 with legislative decree no. 297 dated 27 December 2006. This project ended in 2008 with the authorisation from the bank of Italy to use advanced internal rating systems (AIRB) for PD and LGD with a view to calculating capital requirements for portfolios of "non-financial companies" and "retail exposures" for Banca Monte dei Paschi di Siena and MPS Capital Services. Over the following years, in line with an internal overall 'advancement plan' and from a standpoint of roll-out, the MPS Group continued the process of refinement/ revision of its rating models for Corporate and Retail clients, leading it to obtain authorization by the Supervisory body (with decree of 25/08/2010) to use advanced internal rating based systems for the Group's new entity, "Banca Antonveneta" (acquired in 2008 and merged into Banca MPS in April 2013) and for Montepaschi Leasing & Factoring and BiverBanca by ruling of 06.07.2012. The latter was subsequently sold by the Group to Cassa di Risparmio di Asti and as of the end of 2012 is no longer part of the MPS Group.

Internal rating system description

The development of the internal rating systems involved the adoption of strict and advanced statistical methodologies in compliance with the requirements set out in the regulations; at the same time, models were selected in such a way as to make results consistent with the historical experience of the bank in credit management. Lastly, in order to optimise the proper use of these new instruments, the rating models were shared with a *top-down* approach – from risk management down to individual client managers by means of intense training.

Estimation of the LGD model was based on internal data relative to capital flows, recoveries and expenses actually incurred on positions transferred to the non-performing portfolio. Results obtained from model application were then compared with data observed by the Workout Area, which is dedicated to the management and recovery of non-performing loans.

The introduction of advanced rating systems in the credit process was an important cultural step forward which is now becoming a well-established practice for all Business Units of the Group.

The main characteristics of the advanced rating systems are as follows:

- for all regulatory portfolios subject to validation, the rating is calculated with a counterparty-based approach for each individual borrower, in line with the accepted management practice which provides for the assessment of credit risk, both in the disbursement and monitoring phases;
- ratings are based upon a Group logic: each individual counterparty is assigned a single rating at banking Group level, based on the data set pertaining to all lending banks within the AIRB scope; there is one LGD reference definition for retail banks while there are different reference definitions for product companies;
- LGD reflects the economic (and not only the accounting) loss incurred; for this reason, LGD estimates must also include the costs incurred for the recovery process and a time factor;
- the rating model segmentation is defined in such a way as to make the individual model clusters consistent with business objectives, credit process logics and regulatory portfolios set out in the regulations;
- loss given default is differentiated by type of loans and an LGD value is assigned at the level of each individual transaction;
- customer segmentation for LGD estimation and assignment follows the same logics as with the rating models; for clusters to acquire significance, segments were aggregated together under "Retail" for retail exposures and "Corporate" for exposures to non-financial corporates;
- the loss rate is differentiated by geographical area since historical and current recovery rates are different among Northern Italy, central Italy and Southern Italy and islands;
- loss on defaulted positions other than non-performing loans is estimated with a *Cure Rate* approach. With regard to counterparties whose exposures are administratively classified as Unlikely to Pay and Past due impaired exposures, the

percentage of exposures reverting back to a performing status was calculated and used to adjust LGD estimated from NPL positions;
- changes in exposure after the first transition to default are included in the *Cure Rate* estimate;
- calculation of the final rating is differentiated by type of counterparty.

The credit process envisages a level of in-depth analysis proportional to counterparty risk: the assessment of loan disbursements is based on a complex multi-level structure for medium-large Corporate counterparties (SME and Large Corporate (LC) segments), whose exposure and concentration risks are higher, and a simplified structure for Small SMEs (companies with a turnover of up to EUR 10M) and retail clients;
- in line with this process, the final rating for SMEs and LC is the result of a number of different factors: statistical rating, qualitative rating, *overrides* and valuation of the 'economic group' which businesses belong to; for Small SMEs, SB and retail counterparties the rating is calculated only on the basis of statistical factors;
- the rating has a 12-month internal validity period and is usually reviewed on a yearly basis, except for *rating reviews* following well-structured codified practices or that are brought forward on client managers' request or following serious counterparty deterioration.

The Montepaschi Group has adopted one master Scale for all types of exposures: this enables all units involved in credit management to immediately compare the risk level associated with different counterparties or portfolios; furthermore, the probabilities of default of internal rating classes were mapped against Standard & Poor's external rating scale so as to make internal risk measurements comparable to those available on the financial market.

The table shows a breakdown by PD band - with related central PDs - identified by the MPS Group in order to allow for a significant differentiation of credit risk.

Rating Class	PD	PD Class
AAA	0.01%	1
AA1	0.03%	2
AA2	0.05%	3
AA3	0.09%	4
A1	0.13%	5
A2	0.20%	6
A3	0.30%	7
B1	0.46%	8
B2	0.69%	9
B3	1.05%	10
C1	1.59%	11
C2	2.42%	12
C3	3.99%	13
D1	6.31%	14
D2	9.95%	15
D3	16.03%	16
E1	22.12%	17
E2	31.63%	18
E3	45.00%	19
Default	100.00%	20

Under prudential standards, the PD for the Corporate segment cannot be below 0.03% whilst for Retail, the MPS Group has decided to assign a PD of at least 0.13%

for prudential purposes. The rating system development and monitoring activities are functionally assigned to Risk Management. The estimation procedure is carried out according to an internal development protocol to make sure that estimation activities are transparent and visible for the internal controls and auditing departments.

Risk Management and Internal Validation Function periodically carry out monitoring/ *backtesting* analyses on the internal models to verify their performance stability over time. Should significant vulnerabilities emerge from the analyses, model *fine-tuning* or 'reestimation' procedures are put in place.

The Montepaschi Group currently has 16 rating models (14 validated and two pending validation) and 3 LGD model (MPS, MPSCS e MPSL&F) for the measurement of risk in validated regulatory portfolios.

For the calculation of capital absorption against credit risk, the Montepaschi Group uses **internal rating systems** for the following regulatory classes:

- Corporates,
- Retail exposures.

Internal rating model for Corporates

PD models

For the estimation of PD models, the Montepaschi Group adopted a *default-based* methodology. Among the statistical techniques used in the estimation of models with dichotomous *bad/good* target variables, a logistic regression was selected, characterized by the optimal *trade-off* between statistical soundness and interpretability of results.

The "non-financial businesses" portfolio includes all balance-sheet and unsecured exposures to companies relating to the banks, Monte dei Paschi, MPS Capital Services and MPS Leasing and Factoring.

The data source observation period for Corporate is 7 years.

Model segmentation

Corporate customers were segmented beforehand in order to obtain consistent clusters by risk profile. To this end, a size logic was used (based on the legal form of a company and its turnover) which appears to be consistent from both the statistical and operational point of view. Any information on turnover is obtained from the company balance sheet prepared in accordance with the Fourth EEC directive in relation to the last available annual report. The segment of Small businesses (one-man businesses and partnerships) consists of companies which are not subject to the obligation of preparing balance sheets for legal purposes; tax data are not currently used in the segmentation.

Definition of default

During the stage of development of the PD models, the following definition of default was used: defaulting counterparties are a sub-group of customers with an exposure (credit line granted or drawn) which, in an ordinary condition in a specific month of the year, shows at least one impairment anomaly within the following twelve months. The anomalies contained in the definition of default include *past due* for a period of 90 days, *Unlikely to pay*, doubtful loans. For *past-due* positions a decision was taken to use an internal definition of past due, so called “technical”, to identify instances not representative of a state of financial difficulty that is liable to generate an economic loss (option granted to banks by the regulations at issue), in line with client managers’ actual business-based expectations of economic loss.

The rules applied allowed a sub-set of alerts to be identified, involving vulnerabilities similar to other impairment states (particularly watchlist); the rationale adopted was aimed at integrating defaulting positions with positions which show no temporary anomaly but are characterised by aspects featuring in other states of impairment.

The definition of ‘technical *past due* loans’ was used consistently for PD and LGD estimates. Defaulting positions are identified at MPS banking Group level.

Development stages of the rating models

Two main stages of development are envisaged for each rating model: score model estimate and calibration.

· Score model estimate

All information sources available are taken into account for the estimate of each rating model. A modular approach was adopted to maximise the prediction power of each information source, i.e. a (financial, internal trend, industry trend) standard module was estimated for each information source with the following determination of the final model as a combination of all modules.

The information sources used for Corporate models are the following:

- balance sheet reports,
- internal trend data,
- industry data (Central Credit Registers of the Bank of Italy).

As far as the balance sheet is concerned, a set of indicators covering all areas of inquiry contemplated by corporate financial analysis was determined, including: debt coverage, financial structure, liquidity, profitability, productivity, development.

With reference to lending trend components, the variables normally used by the account managers for risk valuation were restated: types of use of loan forms, account movements, number of irregularities found. The variables are calculated for each type of loan (callable, self-liquidating, upon maturity etc.) and are determined at the Group level over a time horizon of 12/6/3 months. As for the internal practice, the stage of development follows all procedures contemplated by a statistical inquiry: determination of a development sample (70%) and a test sample (30%), fact-finding analyses and preliminary data treatment, univariate analyses, correlation analyses and short list determination, multivariate analyses, model selection and review of out of sample performances.

· Calibration

Calibration is a process for estimating the function which transforms the score models output into default probability, i.e. the probability that a counterparty is in default within one year. The approach used by the MPS Group was based on two main steps:

- estimate of the *anchor point*. The *anchor point* determines the average PD used by the model;
- calculation of the calibration function for adjustment of the *scoring* model parameters. The calibration function essentially defines how expected PD will vary according to the model score.

Calibration in fact envisages a new default rate (*anchor point*) and is therefore inseparable from the need to adjust the parameters of the *scoring* algorithm so as to enable this latter value to be calculated instead of the estimated value. The default rate of the sample should therefore be adjusted in order to take account of the present target rate (*anchor point*).

To this end, the MPS Group has identified a methodology, substantially based on the use of a 'calibration' function, whose final output is an intercept and *slope* value to be applied to the initial *scoring* algorithm.

The *anchor point* represents the level of risk traditionally associated with the specific segment which the model is calibrated on.

It is calculated on the basis of the long-term default rate and qualitative considerations the analyst deems appropriate to introduce.

The estimated calibration function is used to calculate the point-in-time PD which is subsequently mapped on the Montepaschi Group *Master Scale*; each counterparty is assigned a PD level corresponding to its rating class.

LGD models

As required by regulations, the loss rate estimate is the long-term average of realised losses, weighted by the number of counterparties and not by exposure broken down by Legal Entity (Banca MPS, Banca MPSCS e Banca MPS L&F).

The Group uses a *work-out* model based on historical evidence of sets of defaulting transactions with similar characteristics. The database used to estimate the parameter includes all balance-sheet and unsecured exposures relating to the banks within the scope of validation, that were classed as "non-performing" from 01/01/1999 to 31/12/2014, for which either the recovery process has terminated or, if still active, whose balance is zero or seniority exceeds 15 years or with doubtful outcome greater than or equal to 99% regardless of seniority. The relevant clusters for the estimates include the geographic area, type of customers, loans, exposures transitioning to a default state, guarantees and their percentage of coverage.

• Definition of default

During the stage of development of the LGD model, the definition of default used was the same as the one for rating models: defaulting counterparties are a sub-group of customers with an exposure (credit line granted or drawn) which, in an ordinary condition in a specific month of the year, show at least one impairment anomaly within the following twelve months.

• Development stages of the LGD model

The LGD estimate includes three main stages: (i) the measurement of the loss rate actually registered in the history of each individual legal entity in relation to the nonperforming customers, (ii) the calculation of the LGD *downturn*, i.e. an indicator which takes account of the adverse phases of the economic cycle; (iii) the calculation of the LGD for all loan statuses other than non-performing loans.

• Loss Rate for non-Performing Positions

Realised collections minus the costs incurred with respect to defaulting exposures are compared to calculate the LGD rate actually observed on non-performing positions. Considering that reference is made to the registered economic loss, and not only to the accounting loss, all movements are discounted as of the date the loan is classified as non-performing.

The interest rate used for discounting is the *risk free* rate plus an appropriate spread which remunerates the opportunity cost of each bank resulting from the non-use of the capital not repaid by the customer.

As provided for by the regulations, a lower limit of 0% is set since the average LGD cannot be negative.

• LGD Downturn

The relation between collection rates and default rates was analysed to determine the adjustment to be made to the LGD estimates in case of a possible downturn of the economic cycle; once a negative relation between the two series was ascertained, a regression model was clearly formulated between collection rates and macroeconomic variables. Once the collection rates of expansionary and recessive cycles are determined, the *downturn* LGD is calculated as long-term *default-weighted* average, suitable for the recessive phases of the economic cycle.

• Total LGD

The estimated loss rates on defaulting positions other than non-performing loans starts from the estimated cure rate, i.e. the percentage of Watchlist loans, restructured loans, or *Past due* loans reverting to *performing* loan status.

All positions included in the rating model calibration population that became defaulted within the analysis period were selected for this purpose.

A weighted average of the *downturn* LGD was calculated, using the cure rates multiplied by the probabilities of default as weights, to determine the LGD rates for the different statuses of default. The LGD to be applied to all loan transactions of performing customers was determined by using the calibration clusters of the rating models.

Internal rating model for Retail exposures

PD models

A *default-based* methodology has also been adopted for “retail exposures”. The portfolio includes all balance-sheet and unsecured exposures relating to loans granted by the banks, Monte dei Paschi, MPS Capital Services and MPS Leasing & Factoring to retail customers (natural persons or joint co-obligations of natural persons).

The data source observation period for the estimation of PD is 5 years.

- **Definition of default**

The Group used the definition of default adopted for the corporate models also in relation to the PD models applied to the portfolio of Retail exposures.

- **Development stages of the rating models**

Following on from what was previously reported, only the specific features are shown for Retail models, which have been developed and calibrated using the same methods applied for Corporate models.

For the Retail segment, the main sets of information regarding developments are those relating to loans granted by the Group (overdraft facilities, mortgages and small loans) and to the personal data available on the Customer and related parties.

LGD models

The LGD model for retail exposures includes the stages contemplated for the corporate model.

The comments on the estimate data base are only in relation to the retail segment and the *cure rate* estimate population was the calibration population of rating models.

Main changes to the internal rating system in recent years

Following are the main actions implemented over recent years to the MPS Group's internal rating system.

In 2012, the MPS Group performed a full re-assessment of its corporate and retail models with a view to developing the segmentation of corporate models and aligning all models with the new regulatory definition of default which, as of 1 January 2012, provides for the application of a 90-day limit in place of the prior 180-day limit for the reporting of "non-performing" past due and/ or overdue exposures on loans to businesses and retail loans.

In accordance with the *roll-out* plan, in 2013 the Montepaschi Group carried out an estimation of Rating models for the *Non-Banking Financial Institution* (NBFI) segment. Furthermore, the Corporate and Retail models were calibrated by including data from the last few years (most representative of the current economic recession) in the time series.

In 2014, the MPS Group continued to update and revise its internal rating system in order to implement the several events which marked 2014 and which, either directly or indirectly, impacted the loan portfolio's risk parameters:

- firstly, regulatory provisions profoundly changed the framework of prudential supervision in order to strengthen capital requirements and incorporate the new Basel III standards;
- the economic cycle continued to be very

severe, with further significant impacts on the level of risk at both system-wide level and on the MPS portfolio. The impact affected risk in the *performing* portfolio which continued to show very high default rates and a decline in its ability to recover non-performing positions;

- the regulatory exercise known as the «*Comprehensive Assessment*» and, in particular, the *Asset Quality Review* (AQR) revealed a significant impact for the Montepaschi Group;
- finally, there was a reduction in the closure of non-performing positions, which contributed to increasing the vintage of loans.

The combination of these events led to the need for maintenance actions to be implemented on risk parameters to incorporate a fuller and more up-to-date set of information, as per regulatory requirements.

In the light of these events, the MPS Group decided to adjust all its rating models so that the first AQR results (from the *Credit File Review* – CFR) could already be included in the 2014 estimates and the LGD model could be re-estimated in line with internal protocol and Group practice which, over the last few years, have always provided for the annual re-estimation/calibration of all models as a result of the persisting economic cycle.

As for LGD, in order to incorporate the most recent findings, a stock of significant positions not yet closed – but for which the recovery process can essentially be considered as closed - was included in the estimation sample (so-called incomplete *work-outs*). To this end, the percentage of adjustments of operational positions was identified, assuming that the recovery process was essentially concluded for over a certain percentage of coverage. In this connection, a level of coverage in excess of or equal to 99% was identified as significant.

In 2015, as soon as the *default detection* actions were concluded, the MPS Group recalibrated all of its Corporate and Retail rating models and re-estimated all LGD models in order to fully incorporate the AQR impacts. In particular, the time series used for PD and LGD estimations were shifted by one year so as to include the actual data relating to 2014; given the timing of activities (first quarter), it was not necessary to assess prospective TDs as it was for calibrations in the second half of the year, where they were not available.

The operation at the end of 2014 (incorporated in the recalibration of PD models and re-estimation of LGD models) involved the reclassification of a high number of counterparties from *performing* to *non-performing* status and within the *non-performing* categories, which significantly affected the default rate for 2014 as well as the *cure rates*. The shift in the time series meant that the effects of the operation were fully included in the new calibration.

Moreover, in the course of 2015, the supervisory *slotting criteria* approach was used to determine capital requirements for

Specialized Lending transactions of more than 5 €/mln. Finally, as provided for in the *roll-out* plan, the Montepaschi Group went ahead with the estimation of Rating models for the "Banks" segment.

In 2016, in line with the provisions of the regulatory framework (in particular with CRR regulation no. 575/2013, art. 179) on the basis of which 'institutions review their estimates whenever new information becomes available and in any case basis', the MPS Group continued to update and revise its internal rating system in order to reflect the events of 2015 and, in particular, it fully recalibrated all PD models, updating the *Anchor Points* (AP) and implementing the 2015 default rates. Finally, it should be noted that regulatory legislation is profoundly changing the framework of prudential supervisory rules in order to reinforce capital requirements and implement the new Basel III standards. In particular, in addition to the RTSs published by the EBA in 2016 relating to the definition of default to be adopted within estimates, in 2017 the '*Guidelines on PD estimation, LGD estimation and treatment of defaulted assets (EBAGL)*' were published, which call for a number of changes in the previously authorised AIRB models. In order to launch AIRB model updating activities in due time and clearly understand the *compliance* objectives scheduled by the Supervisory Authority for the coming years, the MPS Group has already begun its dialogue with the Supervisory Authority, proposing the new model for the calculation relating to the new definition of default. In addition, in the course of 2017, 2018 and 2019, the MPS Group, along with the other large European banks authorised to use internal models to calculate the capital requirement for credit risk, continued its activities concerning the TRIM (*Targeted Review of Internal Models*). The TRIM is a multi-year project launched by the ECB in 2016, which is currently expected to be completed for the end of 2019 and is meant to evaluate the compliance with regulatory requirements of the internal models currently used by banks, as well as their reliability and comparability. It can be expected that the final result of the TRIM will likely result in further methodological changes in the current internal models.

Furthermore, in 2019 a reestimation and recalibration of PD and LGD models was carried out, which provided for a time series update as well as the implementation of the first implementation of recommendations communicated by the Supervisory Authority as part of the TRIM 2017 with respect to which GMPS has initiated the authorization process for discussion with the supervisory authority.

During 2020, GMPS carried out the fulfilments required to adopt the New Definition of Default provided for by EBA/GL/2016/07 and l'EBA/RTS /2016/06. It should be noted that, starting from 1 January 2021, the Group adopted the New Definition of Default, which will be introduced for regulatory purposes during 2021, based on prior authorisation by the Supervisory Authority.

In relation to these aspects, during 2020 the GMPS submitted to the supervisory authority the complete recalibration of the IRB models based on the NEWDOD.

The new regulations -while confirming the definition of default in its macro aggregates of late payment and probable default of the debtor - introduce, in more prudent vision, some changes relating mainly to:

- Absolute and relative thresholds components for the identification of past due for the verification of default:
  - absolute component of the materiality threshold:
    - ✔ 100 euro for Retail e 500 euro for non-Retail clients, to be compared with the debtor's total past due and/or overdue amount.
  - Relative component of the materiality threshold:
    - ✔ 1% of the exposure, to be compared with the ratio of the total amount past due and/or in arrears to the total amount of all exposures on the balance sheet to the same debtor.

The default is triggered if the two component thresholds are jointly exceeded for 90 continuous days. The above thresholds are calculated at the level of the MPS Group (i.e., past due / overdue at the Group level and Group's total exposure); for the purposes of the above identification of the default, compensation mechanisms with any unused margins of other credit lines (e.g., agreements still available) are not considered.

Further rules for all categories of default are also introduced:

- the alignment of the default classification of a client with all the Legal Entities of the Group (it is not permitted for a client to be classified as default at one Legal Entity in the Group and not at another);
- new rules for the propagation/contagion of default status (e.g. joint credit obligation):
  - ✔ if the joint credit obligation is in default, then the contagion effects is spread to the exposures of exposures of the individuals involved in the joint credit obligation;
  - ✔ if all individual obligors are in default, then the contagious effect is automatically spread to the joint credit obligation of those individuals;
- the possibility of exiting the default only if at least 3 months have passed since the conditions for classifying the position as default no longer exist.

In addition, in order to be aligned with the Guidelines EBA/GL/2017/16 on requirements in force from January 2022, on PD\LGD parameters, the MPS Group has started the complete re-estimation of all models to be submitted to the authorization process of the supervisory authority by 2Q 2021.

Use of Internal Models

Prior to authorisation from the bank of Italy enabling the Montepaschi Group to calculate capital absorptions according to the rules set out for the advanced internal rating systems, the Group used the parameters underlying the calculation of *Risk Weighted Assets* also for other operational and internal management purposes. The basic principle called for the use of Basel 2 input factors –as much in line with operating requirements as possible- even though, for obvious reasons, operational practices naturally diverge from supervisory standards, with some methodological fine-tunings and adjustments required for internal purposes and calculation systems. in particular, "across-the board" parameters used for both "supervisory reporting" and "operational" practices are in relation to the Probabilities of default (PD) resulting from internal rating systems and the loss rates on the "impaired" portfolio (LGD). The latter provide the basis of calculation for different systems of measurement and monitoring, and specifically for:

- **Measurement of economic capital for credit risk.** Among the inputs used for the credit model and related VaR output to be operational, the same PD and LGD variables are applied as those that are also used for regulatory purposes. It is clear that certain adjustments have been necessary, such as the use of probabilities of default "not subject" to validation for portfolios other than "corporate" and "retail", resulting from internal rating systems not yet subject to validation or from main rating agencies, appropriately re-mapped to the internal *master scale*. With regard to LGD, the Group uses parameters estimated on the basis of portfolios subject to validation according to provisions set out by supervisory authorities, although excluding the economic down-turn effect that is contemplated only for regulatory purposes; out-of-validation portfolios use parameters estimated on the basis of medium-long term recovery rates, if any, or LGD rates in line with those set out by internal provisions under the FIRB approach. Although EAD for supervisory purposes follows the standard approach as it is pending validation, it is calculated as the sum of drawn amounts plus undrawn balance (committed amount – drawn amount) multiplied by a Credit Conversion Factor (CCF) if this margin is higher than 5% of the committed amount, whilst for margins below this threshold, the EAD is determined as the drawn amount multiplied by a factor (K). Both types of ratios distinguish between Legal Entity, Segment, Type of Exposure, size class and rating class. For Financial and Commercial Signature loans, the EAD is multiplied by a factor (RC), which expresses the probability that the committed amount does not become a balance sheet exposure upon default of the counterparty.
- For **the calculation of risk-adjusted performance and measurement of value creation**, the Group follows the same calculation logic as used in the loan portfolio model both for legal entities subject to validation and for those that are excluded from the scope. Furthermore, whenever new estimates or re-adjustments are made to the internal rating systems subject to validation, adjustment results are incorporated in the VBM procedures which ensure continuous output alignment with the latest updates.

- The parameters which feed the calculation model for the **risk-adjusted pricing process** are the same as those used for the loan portfolio model, even though with some extensions implicit in the pricing model. The pricing model which price-marks different types of loans with different maturities, requires input not only from the annual Probability of default but also from marginal, *forward* and multi-period Pds. For these reasons, the Montepaschi Group has developed specific calculation methodologies for these default probabilities, all in compliance with the annual PD resulting from the validated rating systems. Similarly, LGD calculation is based on the same criteria as those used and mentioned above for the loan Portfolio model, though not taking account of economic downturns.
- In relation to **credit process monitoring**, the following should be noted:
  - processes of loan disbursement to customers included in the AIRB scope of application have been completely 'reengineered' with the Electronic Credit Facility record software. The Montepaschi Group's counterparty rating is the result of a process which evaluates - in a transparent, structured and consistent manner - all the economic financial, 'behavioural' and qualitative information relative to customers who generate credit risk exposures. The Official rating thus determined has ordinary validity up to the twelfth following month and shall be reviewed by the end of that month. However, the rating review in the monitoring process may be prompted at an earlier date during the validity period if ongoing, major monthly statistical Pd variations – exceeding specific *cut-offs* – are intercepted. The loan disbursement system is organised into several 'paths', depending on the type of customer and transaction requested, which envisage the possibility of executing the process of assigning a rating to each counterparty and do not allow for any decision-making powers to be exercised in the absence of a valid rating;
  - credit is monitored by using an *early management* system which uses a binding and non-binding *early detection* trigger as well as a "performance risk indicator", known as IRA (it.: "Indicatore di Rischio Andamentale") which is based on internal and external information regarding the customer's trends and behaviors. When given PRI thresholds are exceeded, the position is intercepted within a process whereby the operator is required to comply with certain activities in order to address the irregularities identified;
  - the Simplified renewal process is used for low-risk situations and lower amounts. This process is applied to all counterparties with credit facilities subject to revision, which have matured or will mature in the month

of reference;

- the principle underlying decision-making powers provides for levels to be assigned on the basis of individual counterparty ratings, the amount of the credit facility requested, the level of risk measured for the Group to which the counterparty belongs, the type of credit facility requested or guarantees required and, finally, the nature of the borrower;
- on the basis of these levels, the system for assigning powers identifies a nominal amount for each risk aggregate: power of approval is assigned to the decision-making bodies, making reference to the combination of rating class and type of loan granted according to the principle of delegating the decision-making powers for the worst ratings to the uppermost levels. Exception to this rule is made for the board of directors, which has the highest level of decision-making powers, and for the levels of approval assigned to corporate decision-making bodies.

The importance of internal ratings for management purposes made it necessary to create a unit to control and validate the rating systems within the Montepaschi Group. This unit has an independent organizational structure and separate management reporting flows from the unit responsible for developing, updating and reviewing the systems themselves. This structure meets the requirements set by regulatory legislation to carry out validation controls.

The policies for recognition of credit risk mitigation guarantees are implemented through a dedicated IT process which is applied for reporting purposes and does not overlap with the rules for managing guarantees and collaterals applicable to the loan disbursement process.

The IT application manages all rules for the admissibility of guarantees. The process is based on a first step registry of all guarantees, which outlines the Group operational framework. at a later stage, the data of each individual guarantee is assessed through an analysis of its specific characteristics. In particular, the following general requirements are verified:

- legal certainty;
- enforceability of Guarantee against third parties;
- timely liquidation;
- compliance with organisational requirements.

Control Management model on Internal Rating System

An advanced internal rating system, according to current regulations in force should provide for appropriate forms of review and inspection at all levels of control activities.

The AIRB system used by the Montepaschi Group provides for the execution of automatic controls, i.e. controls regulated by specific operational protocols (e.g. hierarchical controls), within the operating units involved in the process of rating assignment. These controls are aimed at making sure that activities preliminary to rating assignment are properly performed (i.e. selection of a model suitable for customer or transaction assessment, identification of economic or legal relations between customers, compliance with internal procedures oriented to obtaining the information necessary for the assignment and updating of the rating).

The first set of *Data Quality* controls relating to the Internal Rating System was created in 2008, with the definition and set-up of the AIRB models.

In 2016, the Group launched a specific long-term Business Plan project - the Data Governance project - under the responsibility of the Chief Data Officer, within the scope of which it:

- selected a Distributed type Target organisational model which, under the guidance of a central function, calls for the significant involvement of the Business and IT functions;
- defined and published the reference regulations;
- made the Business functions (*Data Owners*) for the scope identified accountable for the identification of the Data Dictionary components and the definition of controls over the monitoring phase;
- prepared a complete operating machine for the Montepaschi Group for the management of the *Business Glossary, Data Quality* and *remediation*; for *data quality*, the application is capable of managing the execution of controls, their monitoring (up to the level of individual counterparty) and directing the anomaly *remediation* process.

In 2017, the Rating Service, which merged into the Lending Risk Officer Area, participated in the Data Governance project as a "pilot" on the Rating System, migrating the set of existing controls, recording new controls on the new official Data Governance platform and taking responsibility for first-level control maintenance and monitoring.

The Validation and Risk System Service (Function Internal Validation) within the Credit Risk Officer Division, shall be responsible for the following levels of review contemplated by the regulations. The Validation and Risk Systems Service Unit steadily evaluates whether the estimates of all important risk components are accurate in relation to internal rating System (hereinafter IRS). Starting in 2016 this unit was assigned the operational validation activities outsourced to the Parent Company by the Subsidiary Companies MPS Capital Services and MPS Leasing & Factoring, while starting from 2018 it is responsible for the provision of Model Risk Management Function.

The Internal Validation Function prepares the Montepaschi Group's "Annual internal rating System Validation report" on a yearly basis, expressing an opinion regarding the positioning of the Group's SRI with respect to the regulatory requirements as well as its orderly functioning, predictive capacity and the overall performance of the system itself. The opinion expressed by the Internal

Validation Function is then examined by the Corporate Control Functions Coordination Committee, also for the purpose of sharing and agreeing on any remedial actions required. The "Annual Validation Report" is subsequently submitted for approval by the Parent Company's Board of Directors once submitted for examination of the Risk Committee and having heard the opinion of the Board of Statutory Auditors. Moreover, the Chief Audit Executive Division (hereinafter also CAED) is assigned with the task of assessing the efficiency of the overall structure of controls for the rating system (responsible for review controls).

The methods adopted by the above operating units in relation to the operational procedures of validation and *review* are briefly illustrated below.

Internal Rating System Validation Process

Responsibility for validating the SRI is assigned to the head of the Internal Validation Function identified as of 31 July 2017 as the head pro tempore of the Validation and Risk Systems Service (VRSS) in carrying out operational activities that are required for validation. Key findings which emerge from the validation controls carried out during the year by the Staff unit are included in the "Annual Validation Report".

The Validation and Risk System Service (was set up in February 2014 with the specific task of validating certain risk measurement models – regulatory and non-regulatory – by constantly verifying the reliability of results obtained and maintaining alignment with regulatory requirements. The results of these controls are documented, formalised and transmitted directly to the structures concerned as well as to the Chief Audit Executive Division. Once a year these results are included in the "Annual Validation Report" which expresses an overall opinion on the position of the IRS with respect to the supervisory requirements. The validation process, within which the abovementioned controls are carried out with a view to finally validating the rating System, consists of the following formal validations:

- validation of **processes**: checks compliance of the internal rating assignment process with the minimum organisational requirements of CRR and circular no. 285 of the Bank of Italy, with a specific focus on the following aspects:
  - design of rating allocation processes and regulatory assessments concerning *Specialized Lending* transactions and, where possible, the *backtesting* of process results while checks on the efficiency of the processes themselves are performed by the Internal Audit Function;
  - analysis of consistency between the changes in ratings made by an operator and the guidelines issued by the units responsible for the assignment of ratings;
  - verifying the actual use of the rating system within the company, identifying the players and processes involved with a particular focus on the loan disbursement and renewal

process;

- validation of **models**: checks that the statistical models for the calculation of the risk parameters used by the Group MPS maintain specific performance levels and comply with the minimum organisational and quantitative requirements provided for by the rules; and in particular the following is verified:
  - representativeness: checks the consistency between the application population's characteristics in the production of models and the sample used for the estimation;
  - concentration: assesses the level of concentration of counterparties and exposures within the individual rating class, determined by the application of models;
  - performance: assessment of the prediction power of the model and therefore its power to separate highly solvent customers from potentially hazardous customers;
  - calibration: check the risk preliminarily assigned for each class of rating and at overall level vs. the observed historical risk;
  - stability: assessment of the stability of the assigned ratings over time;
  - *benchmarking*: check consistency of ratings assigned internally with those assigned by outside structures on portfolios having a low number of counterparties;
- **data** validation: monitoring of the process of identifying and resolving *data quality* anomalies identified by the controls conducted by the Business Functions concerning the quality of the data used by the SRI.

The process of validation involves the preparation of questionnaires for each scope of action identified, with the objective of checking compliance of each aspect of the IRS with regulatory requirements. The detailed positions on each requirement are collated in an overarching opinion of validation through a system of scoring replies and weighting questions, which is part of the framework that has been established and formalized. This judgment represents the quantitative prerequisite for the formulation of the validation opinion both on the three areas in which the Validation Framework is set in, and on the SRI as a whole.

The methods chosen meet the requirement of making the process of validation transparent and objective, not only with respect to the Supervisory authorities but especially to each operating unit which develops the IRS and is informed of any faults in the system, for correction. This ensures easier action on the gaps and consequently a better control of the proper operations of the IRS by the Function Internal Validation.

Process of Internal Review of the Internal Rating System

In line with the existing regulations, the Chief Audit Executive Division of the Montepaschi Group adopts the professional Standards and guidelines of the main domestic and international entities, through an independent and objective activity of *assurance* and advice aimed at controlling, also through onsite inspections, the regular operations and risk trend and assessing the functional efficiency and compliance of the Internal Control Systems in order to improve the effectiveness and efficiency of the organisation.

The introduction of advanced systems of risk measurement and management determined an extension of activities mandated to the internal audit unit and related responsibilities.

The overall review approach focuses on the objective of providing a coherent assessment of adequacy, in terms of both effectiveness and efficiency, of the control systems of the rating-based process of governance and management of credit risk.

In particular, the responsibilities assigned to the internal audit unit by the Supervisory regulations, with reference to the *review* of the advanced models for credit risk assessment and management can be summarised in three following points:

1) assessment of the overall functional efficiency of the control system of the AIRB approach;
2) assessment of the functional efficiency and regularity of the internal validation process;
3) review of system compliance with the requirements for regulatory use of risk estimates.

However, the main operating components attributable to the adoption of an internal rating system require that the review of that process be considered as part of a larger analysis and assessment of the whole loan management process. The objective is to ensure the materialisation of important synergies from the point of view of the actual cost of implementation and, above all, the overall and coherent observation of the events analysed which share different audit *findings* on the rating process stemming from the reviews carried out in the distribution network and Group companies. The audit controls to be carried out for an assessment of the above-mentioned aspects are guided by efficiency and compliance checks. As a result of the different kinds of control, the internal audit unit performs its responsibilities which consist in reviewing the validity of the whole IRS and the validation process, as well as compliance of the system with regulatory requirements.

Quantitative information

The following table reports the Group's exposure to credit risk – AIRB, as at 31 December 2020 divided by classes of regulatory activities. The exposure values reported are determined according to prudential supervisory requirements and as such are inclusive of value adjustments and do not factor in the effects of risk mitigation techniques which, in the case of exposures subject to an internal models-based approach, are directly included in the risk-weighting factor applied. As for guarantees issued and commitments to disburse funds, the values reported take into account credit conversion factors. The exposure value reported in the

table, therefore, shows the credit equivalent.
Following are the values of Risk Weighted Assets (RWAs), expected loss (EL) and actual losses (AL) as at the end of 2020. It is noted that the amount of value adjustments on general-purpose and special-purpose receivables relating to securitisation exposures are not included in the calculation of the Expected Loss Delta, as required by the CRR.
The nominal value in table 5.3.3 and following shows the exposure value before applying the credit conversion factor.

Tab. 5.3.1 – AIRB Approach: Summary of Exposures, RWAs, expected and actual losses

	Dec-20			
Regulatory Portfolio	EAD	RWA	PA	PE
Exposures to or secured by corporates:	**22,494,584**	**13,477,691**	**1,169,098**	**1,339,465**
- SMEs	10,712,577	5,321,775	785,045	978,947
- Other companies	10,371,342	6,991,171	348,166	324,613
- Specialized lending	1,410,664	1,164,745	35,887	35,905
Retail exposures:	**38,697,224**	**6,940,762**	**791,745**	**994,479**
- Secured by real estate: SMEs	4,578,389	1,453,987	162,447	187,477
- Secured by real estate: Individuals	27,629,872	3,447,221	146,240	210,086
- Qualifying revolving	78,648	5,869	295	612
- Other retail exposures: SMEs	5,173,096	1,784,790	414,410	495,821
- Other retail exposures: Individuals	1,237,219	248,895	68,353	100,483
Total as at 31/12/2020	**61,191,808**	**20,418,453**	**1,960,842**	**2,333,943**
Total as at 31/12/2019	**75,048,349**	**28,480,112**	**5,931,480**	**6,422,232**

Reported below is the breakdown by PD class, identified by the MPS Group to allow for a significant distinction to be made for credit risk (see para. 5.3) by Group exposures and regulatory portfolio.

Tab. 5.3.2 – IRB Approach: Exposures, expected and actual losses distribution by regulatory portfolio and PD classes (except for Specialized lending)

	Dec-20				
Classes of creditworthiness	Corporates Exposure	Retail Exposure	AIRB Total Exposures	AIRB Total EL	AIRB Total AL
Class 01					
Class 02	56,208	17,162	73,371	9	121
Class 03	224,576	53,673	278,248	59	467
Class 04	437,185	101,833	539,017	191	664
Class 05	591,333	7,298,929	7,890,263	1,552	1,989
Class 06	769,494	5,005,385	5,774,878	2,082	3,165
Class 07	1,761,166	3,863,563	5,624,729	3,893	8,096
Class 08	3,178,560	3,261,944	6,440,504	6,832	11,947
Class 09	1,906,062	4,515,752	6,421,813	10,251	15,982
Class 10	2,782,285	4,383,296	7,165,581	19,035	26,032
Class 11	2,106,511	2,426,530	4,533,041	20,959	36,029
Class 12	1,482,657	1,930,284	3,412,941	22,379	47,017
Class 13	2,066,725	1,978,482	4,045,207	48,114	125,620
Class 14	808,136	1,021,063	1,829,199	31,689	80,743
Class 15	478,435	568,395	1,046,830	25,370	61,768
Class 16	225,816	354,422	580,238	22,537	42,055
Class 17	74,848	133,479	208,327	10,529	19,163
Class 18	38,362	77,071	115,433	8,400	11,008
Class 19	77,884	51,615	129,499	17,041	16,497
Class 20	2,017,678	1,654,346	3,672,024	1,674,035	1,789,675
Total as at 31/12/2020	**21,083,920**	**38,697,224**	**59,781,143**	**1,924,955**	**2,298,039**
Total as at 31/12/2019	**29,344,652**	**43,783,366**	**73,128,019**	**5,794,829**	**6,275,021**

The following table shows a breakdown by PD band with quantitative details for the advanced IRB approach of the Portfolio “Exposures to or guaranteed by businesses” divided by regulatory asset class:

- *Specialized lending – slotting criteria.*
- *SMEs,*
- *Other companies,*

Tab. 5.3.3 – EU CR10 – IRB (Specialized lending and equities)

	Slotting criteria					
Rating Class	Nominal Value	Exposure Value	Off-balance-sheet amount	RWA	Value adjustments	Expected Loss
Category 1 - 50%	4,932	3,914	2,209	1,623	9	-
Category 1 - 70% equal to or greater than 2.5 years	184,766	181,774	8,327	110,162	631	727
Category 2 -70% less than 2.5 years	242,390	164,948	109,179	110,890	343	660
Category 2 - 90%	898,056	794,824	196,665	634,773	5,499	6,359
Category 3 - 115%	179,089	172,541	14,819	175,797	10,031	4,831
Category 4 - 250%	54,867	54,812	55	131,500	4,968	4,385
Category 5 - 0%	39,831	37,851	3,959	-	14,424	18,926
Total as at 31/12/2020	**1,603,931**	**1,410,664**	**335,212**	**1,164,745**	**35,905**	**35,887**
Total as at 31/12/2019	**2,002,651**	**1,825,016**	**319,562**	**1,514,422**	**147,211**	**136,651**

Tab. 5.3.4 – (EU CR6) - IRB approach: Exposures to or secured by corporates - SMEs

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	182,867	170,593	30,870	150,144	6,94%	132	0.03%	40.44%	2,15	7.13%	65	4	2,202
Class 03	335,236	307,228	84,768	234,652	5,20%	276	0.05%	42.18%	1,67	9.49%	124	18	8,047
Class 04	608,216	544,539	189,876	383,145	7,43%	586	0.09%	38.07%	2,32	14.28%	347	65	27,121
Class 05	855,170	752,978	302,731	483,205	6,82%	628	0.13%	37.01%	2,51	18.85%	695	146	57,055
Class 06	1,114,328	959,271	399,667	596,938	6,25%	917	0.20%	36.07%	2,35	22.12%	879	288	88,413
Class 07	1,953,042	1,689,092	834,016	941,525	9,18%	1,367	0.30%	32.71%	2,98	28.75%	3,785	818	239,794
Class 08	1,631,383	1,358,722	710,232	711,995	8,92%	1,356	0.46%	37.02%	2,62	38.85%	3,139	1,209	275,900
Class 09	1,821,928	1,511,241	815,279	751,165	7,35%	1,712	0.69%	34.34%	2,73	41.08%	5,284	1,932	334,952
Class 10	2,287,841	1,888,733	1,175,617	779,598	8,53%	2,077	1.05%	34.24%	2,81	49.86%	6,944	4,227	586,117
Class 11	2,057,538	1,711,816	1,212,864	572,652	12,87%	1,833	1.59%	32.77%	3,00	54.98%	11,020	6,320	666,811
Class 12	1,433,015	1,200,774	898,844	338,068	10,69%	1,463	2.42%	31.24%	3,21	58.84%	14,417	6,795	528,877
Class 13	1,761,721	1,520,433	1,244,615	349,432	21,07%	1,390	3.99%	32.81%	3,17	72.41%	45,388	16,291	901,258
Class 14	825,956	734,345	620,228	132,458	13,85%	671	6.31%	29.96%	3,45	75.41%	30,684	11,725	467,743
Class 15	522,009	472,466	435,572	39,355	6,25%	365	9.95%	26.24%	3,58	79.44%	27,257	11,373	346,034
Class 16	235,908	216,601	192,843	31,870	25,45%	183	16.03%	26.73%	3,92	94.56%	15,140	8,262	182,348
Class 17	82,211	70,969	68,366	3,044	14,51%	71	22.12%	26.02%	3,86	98.23%	7,204	3,934	67,155
Class 18	41,360	37,158	34,767	12,726	81,21%	38	31.63%	30.63%	2,39	121.26%	4,017	3,368	42,159
Class 19	60,697	60,250	59,818	1,066	59,43%	45	45.00%	32.56%	4,21	132.53%	8,609	8,764	79,279
Class 20	1,594,610	1,563,240	1,401,604	199,509	18,98%	1,122	100.00%	49.51%	2,42	30.00%	793,949	699,504	420,510
Total as at 31/12/2020	**19,405,035**	**16,770,451**	**10,712,577**	**6,712,547**	**9,47%**	**16,232**	**3.03%**	**33.09%**	**2,91**		**978,947**	**785,045**	**5,321,775**
Total as at 31/12/2019	**22,617,809**	**21,999,823**	**16,731,364**	**6,022,083**	**11,51%**	**17,630**	**2.65%**	**34.04%**	**2,83**		**2,744,080**	**2,421,943**	**8,963,341**

(a) *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*

(B) *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Tab. 5.3.5 – (EU CR6) – IRB approach: Exposures to or secured by corporates – Other companies

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	189,324	189,324	25,339	172,124	4,73%	34	0.03%	44.48%	1,85	11.66%	24	3	2,955
Class 03	483,156	478,901	139,807	447,478	24,22%	56	0.05%	44.24%	2,54	20.56%	251	31	28,744
Class 04	664,492	656,213	247,309	457,122	10,55%	148	0.09%	41.31%	3,20	31.20%	176	92	77,155
Class 05	1,213,280	1,182,053	288,603	1,037,316	13,87%	183	0.13%	42.20%	1,70	27.57%	414	158	79,573
Class 06	1,594,537	1,502,127	369,826	1,207,605	6,24%	266	0.20%	43.07%	2,23	41.98%	993	319	155,264
Class 07	2,944,300	2,810,217	927,150	2,082,561	9,58%	528	0.30%	43.96%	2,10	51.43%	1,854	1,223	476,819
Class 08	4,769,897	4,438,374	2,468,328	2,526,898	22,04%	474	0.46%	26.95%	1,99	40.89%	5,732	3,060	1,009,289
Class 09	2,585,063	2,380,975	1,090,783	1,496,038	13,76%	505	0.69%	42.88%	1,79	70.65%	3,877	3,227	770,639
Class 10	3,425,848	2,960,880	1,606,668	1,663,461	18,59%	565	1.05%	41.84%	1,93	82.59%	7,491	7,058	1,326,966
Class 11	1,682,632	1,481,466	893,646	685,910	14,30%	381	1.59%	42.19%	1,98	98.35%	6,098	5,995	878,869
Class 12	1,118,418	905,449	583,813	391,511	17,85%	238	2.42%	31.80%	1,43	81.31%	3,527	4,492	474,716
Class 13	1,382,641	1,276,627	822,109	587,541	22,64%	284	3.99%	43.40%	1,64	131.65%	16,316	14,237	1,082,270
Class 14	276,666	258,412	187,908	100,501	29,85%	92	6.31%	39.46%	1,80	140.01%	5,601	4,679	263,081
Class 15	89,286	78,925	42,863	43,499	17,10%	58	9.95%	36.96%	1,58	154.79%	1,805	1,576	66,346
Class 16	38,662	37,946	32,973	7,662	35,09%	22	16.03%	37.82%	1,96	186.04%	2,790	1,999	61,345
Class 17	7,218	7,218	6,482	1,152	36,07%	6	22.12%	46.16%	1,27	250.87%	1,748	662	16,260
Class 18	7,540	7,540	3,595	6,363	38,00%	5	31.63%	24.64%	1,04	123.12%	112	280	4,426
Class 19	20,388	20,388	18,066	2,321	0,00%	4	45.00%	40.79%	1,06	212.85%	2,830	3,316	38,453
Class 20	909,152	905,379	616,074	454,957	36,41%	285	100.00%	47.97%	1,85	28.89%	262,975	295,758	178,001
Total as at 31/12/2020	**23,402,501**	**21,578,414**	**10,371,342**	**13,372,021**	**15,48%**	**4,134**	**1.37%**	**37.95%**	**1,93**		**324,613**	**348,166**	**6,991,171**
Total as at 31/12/2019	**23,709,546**	**23,671,114**	**12,613,289**	**13,206,316**	**15,39%**	**4,182**	**1.92%**	**41.37%**	**2,21**		**1,039,453**	**970,701**	**9,254,542**

(a) *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*
(B) *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

The following table shows a breakdown by PD band with quantitative details for the advanced IRB approach of the Portfolio "Retail Exposures" divided by regulatory asset class:

- *Secured by real estate - SMEs,*
- *Secured by real estate - Individuals,*
- *Qualifying revolving,*
- *Other retail exposures - SMEs,*
- *Other retail exposures - Individuals*

Tab. 5.3.6 – (EU CR6) – IRB Approach: Retail exposures secured by real estate - SMEs

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	3,326	3,326	3,325	1	50,03%	21	0.03%	18.88%	-	1.41%	4	0	47
Class 03	11,319	11,319	11,315	5	2,63%	59	0.05%	18.91%	-	2.13%	9	1	241
Class 04	24,823	24,512	22,962	2,547	39,12%	182	0.09%	18.92%	-	3.38%	21	4	777
Class 05	51,303	51,279	49,300	3,942	49,80%	351	0.13%	18.94%	-	4.49%	46	12	2,216
Class 06	101,478	100,585	100,404	253	28,46%	730	0.20%	18.76%	-	6.17%	105	38	6,197
Class 07	228,784	226,183	224,740	2,418	40,35%	1,586	0.30%	19.58%	-	8.70%	384	132	19,563
Class 08	298,600	296,124	294,927	1,574	23,96%	2,035	0.46%	19.79%	-	11.97%	628	268	35,299
Class 09	501,412	498,641	497,544	1,717	36,11%	3,441	0.69%	19.81%	-	15.98%	1,496	680	79,513
Class 10	677,104	672,142	667,962	6,039	30,77%	4,322	1.05%	19.90%	-	21.24%	2,914	1,395	141,852
Class 11	726,430	720,036	716,416	4,722	23,32%	4,917	1.59%	20.13%	-	28.37%	5,331	2,293	203,231
Class 12	602,678	593,290	586,625	8,563	22,17%	3,691	2.42%	19.96%	-	36.28%	7,066	2,833	212,815
Class 13	529,331	522,214	521,338	1,201	27,05%	2,816	3.99%	20.04%	-	48.36%	16,872	4,169	252,137
Class 14	271,967	266,055	265,328	1,234	41,07%	1,574	6.31%	19.73%	-	60.36%	10,272	3,304	160,143
Class 15	119,272	117,613	115,776	3,509	47,64%	584	9.95%	20.19%	-	75.79%	6,736	2,326	87,753
Class 16	93,879	93,206	92,957	251	0,81%	384	16.03%	21.12%	-	92.48%	6,665	3,147	85,967
Class 17	34,142	34,090	33,866	444	49,65%	164	22.12%	20.26%	-	94.81%	2,849	1,518	32,109
Class 18	18,155	18,155	18,155	-	0,00%	98	31.63%	19.40%	-	92.78%	1,827	1,114	16,843
Class 19	20,673	20,632	20,632	-	0,00%	83	45.00%	19.49%	-	85.12%	2,004	1,810	17,563
Class 20	344,167	340,929	334,817	9,579	36,19%	1,587	100.00%	39.83%	-	29.78%	122,249	137,402	99,722
Total as at 31/12/2020	**4,658,843**	**4,610,332**	**4,578,389**	**47,999**	**32,77%**	**28,625**	**2.94%**	**19.90%**	**0,00**		**187,477**	**162,447**	**1,453,987**
Total as at 31/12/2019	**5,866,130**	**5,829,220**	**5,801,907**	**44,269**	**37,34%**	**33,699**	**3.18%**	**19.82%**	**0,00**		**558,566**	**654,355**	**1,854,434**

[a] *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*

[B] *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Tab. 5.3.7 – (EU CR6) – IRB Approach: Retail exposures secured by real estate - Individuals

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 03	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 04	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 05	7,253,079	7,030,822	7,029,297	2,855	46,55%	85,128	0.13%	12.48%	-	3.84%	659	1,140	269,940
Class 06	5,084,419	4,590,227	4,589,573	874	25,24%	59,465	0.20%	13.10%	-	5.57%	809	1,202	255,651
Class 07	3,404,925	3,187,167	3,186,631	652	17,80%	39,545	0.30%	12.69%	-	7.27%	1,287	1,213	231,762
Class 08	2,652,733	2,468,148	2,466,268	1,998	5,96%	32,044	0.46%	12.65%	-	9.86%	1,323	1,435	243,093
Class 09	3,535,867	3,374,415	3,371,460	3,209	7,88%	44,705	0.69%	11.79%	-	12.19%	3,016	2,744	411,071
Class 10	3,144,067	3,033,514	3,029,631	4,170	6,86%	40,164	1.05%	11.51%	-	15.80%	4,749	3,662	478,575
Class 11	1,033,975	975,435	972,369	3,066	0,00%	12,876	1.59%	12.21%	-	21.93%	5,937	1,888	213,204
Class 12	699,437	667,622	663,141	4,506	0,55%	7,865	2.42%	11.93%	-	27.73%	8,918	1,914	183,883
Class 13	876,123	839,197	834,724	4,473	0,00%	9,582	3.99%	11.81%	-	36.57%	22,931	3,934	305,287
Class 14	402,306	385,712	381,748	4,026	1,51%	4,322	6.31%	11.80%	-	46.31%	12,349	2,843	176,776
Class 15	282,818	271,589	268,515	3,074	0,00%	2,938	9.95%	11.50%	-	55.27%	10,383	3,073	148,417
Class 16	167,936	161,749	160,233	1,628	6,86%	1,825	16.03%	11.35%	-	64.21%	6,396	2,915	102,893
Class 17	66,293	65,124	64,703	421	0,00%	784	22.12%	11.18%	-	67.83%	2,725	1,600	43,890
Class 18	39,264	38,213	38,193	23	14,56%	481	31.63%	11.02%	-	68.02%	1,782	1,331	25,979
Class 19	17,196	17,066	16,854	212	0,00%	230	45.00%	11.35%	-	64.26%	825	861	10,830
Class 20	575,040	565,292	556,533	8,779	0,23%	6,401	100.00%	19.20%	-	62.17%	125,998	114,485	345,971
Total as at 31/12/2020	**29,235,475**	**27,671,292**	**27,629,872**	**43,965**	**7,18%**	**348,355**	**1.00%**	**12.36%**	**0,00**		**210,086**	**146,240**	**3,447,221**
Total as at 31/12/2019	**29,150,505**	**27,916,297**	**27,907,035**	**13,044**	**41,65%**	**348,527**	**0.77%**	**12.28%**	**0,00**		**460,769**	**492,304**	**3,654,559**

[a] *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*
[B] *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Tab. 5.3.8 – (EU CR6) – IRB Approach: Retail Exposures - Qualifying revolving

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 03	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 04	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 05	44,957	44,957	21,742	23,215	-	35,272	0.13%	21.40%	-	1.70%	6	6	369
Class 06	19,282	19,282	8,920	10,362	-	14,130	0.20%	26.60%	-	3.01%	5	5	268
Class 07	26,686	26,686	11,183	15,503	-	16,784	0.30%	21.52%	-	3.38%	11	7	378
Class 08	12,514	12,514	5,220	7,294	-	7,025	0.46%	25.75%	-	5.70%	8	6	298
Class 09	14,649	14,649	7,078	7,571	-	9,139	0.69%	22.62%	-	6.89%	20	11	488
Class 10	12,693	12,693	7,564	5,129	-	8,970	1.05%	22.12%	-	9.32%	44	18	705
Class 11	7,728	7,728	5,108	2,620	-	6,060	1.59%	22.23%	-	12.79%	60	18	654
Class 12	5,632	5,632	3,819	1,813	-	4,589	2.42%	22.19%	-	17.35%	69	21	663
Class 13	3,472	3,472	2,283	1,189	-	2,860	3.99%	24.75%	-	27.44%	62	23	627
Class 14	4,888	4,888	4,418	470	-	4,965	6.31%	15.02%	-	22.51%	110	42	994
Class 15	615	615	369	246	-	491	9.95%	23.93%	-	47.15%	23	9	174
Class 16	372	372	195	176	-	274	16.03%	22.37%	-	56.49%	16	7	110
Class 17	188	188	60	128	-	107	22.12%	27.55%	-	79.54%	6	4	48
Class 18	176	176	119	57	-	208	31.63%	13.52%	-	43.10%	12	5	51
Class 19	267	267	86	181	-	192	45.00%	15.44%	-	49.59%	10	6	43
Class 20	869	869	483	386	-	847	100.00%	22.51%	-	-	149	109	-
Total as at 31/12/2020	**154,988**	**154,988**	**78,648**	**76,339**	**-**	**111,913**	**1.19%**	**22.31%**	**-**		**612**	**295**	**5,869**
Total as at 31/12/2019	**183,014**	**183,014**	**93,584**	**89,430**	**-**	**120,397**	**1.31%**	**22.81%**	**-**		**657**	**365**	**7,469**

[a] *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*

[B] *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Tab. 5.3.9 – (EU CR6) – IRB Approach: Retail Exposures - SMEs

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	66,477	55,175	13,837	43,914	5,87%	517	0.03%	44.99%	-	3.59%	28	2	497
Class 03	196,776	172,976	42,358	134,756	3,07%	1,108	0.05%	44.32%	-	5.28%	83	9	2,238
Class 04	725,841	670,175	78,871	601,901	1,76%	10,411	0.09%	42.72%	-	7.93%	120	30	6,252
Class 05	489,250	404,830	114,598	306,653	5,35%	3,706	0.13%	42.88%	-	10.39%	140	64	11,911
Class 06	834,265	666,347	230,951	462,784	5,92%	6,950	0.20%	42.90%	-	14.05%	329	198	32,443
Class 07	1,152,021	901,579	330,503	603,720	5,41%	11,283	0.30%	42.80%	-	18.31%	675	424	60,513
Class 08	1,120,337	857,155	370,240	522,032	6,73%	13,275	0.46%	42.56%	-	23.64%	944	725	87,512
Class 09	1,449,808	1,077,299	494,803	625,978	6,95%	19,008	0.69%	41.85%	-	28.98%	1,784	1,429	143,414
Class 10	1,600,865	1,122,666	537,488	627,887	6,80%	23,120	1.05%	41.82%	-	35.24%	2,817	2,360	189,434
Class 11	1,671,151	1,161,542	591,947	618,148	7,85%	25,640	1.59%	41.45%	-	40.66%	5,546	3,901	240,712
Class 12	1,455,414	1,028,883	581,544	485,401	7,84%	22,113	2.42%	41.28%	-	45.04%	9,938	5,810	261,936
Class 13	1,165,335	834,881	523,127	340,203	8,36%	17,363	3.99%	41.24%	-	48.32%	18,969	8,609	252,784
Class 14	654,294	477,969	332,728	161,252	9,93%	11,063	6.31%	40.93%	-	50.31%	19,261	8,592	167,400
Class 15	299,681	218,600	164,172	61,518	11,52%	4,285	9.95%	40.51%	-	54.99%	14,129	6,618	90,286
Class 16	158,184	110,791	87,821	26,204	12,34%	2,667	16.03%	40.88%	-	67.03%	9,925	5,754	58,866
Class 17	48,887	33,253	28,063	5,890	11,89%	971	22.12%	40.70%	-	76.39%	4,150	2,527	21,439
Class 18	31,527	21,116	17,775	4,486	25,51%	1,538	31.63%	37.91%	-	79.46%	2,890	2,131	14,125
Class 19	17,603	14,210	11,815	3,524	32,04%	1,970	45.00%	38.78%	-	83.62%	1,859	2,062	9,880
Class 20	814,141	743,245	620,456	163,646	24,97%	32,070	100.00%	57.56%	-	21.46%	402,235	363,164	133,149
Total as at 31/12/2020	**13,951,857**	**10,572,691**	**5,173,096**	**5,799,898**	**6,38%**	**209,058**	**2.75%**	**41.74%**	**0,00**		**495,821**	**414,410**	**1,784,790**
Total as at 31/12/2019	**14,102,719**	**13,198,312**	**8,252,376**	**5,401,073**	**7,83%**	**216,898**	**2.79%**	**42.30%**	**0,00**		**1,195,810**	**1,058,065**	**2,791,655**

[a] *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*

[B] *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Tab. 5.3.10 – (EU CR6) – IRB Approach: Retail Exposures - Individuals

Rating Class	On-balance-sheet gross exposures	Nominal Value	Exposure Value	Revocable and Irrevocable Margins	CCF% (Average)	Number of obligors	Weighted Average PD (%)	Weighted Average LGD(%)	Average maturity	Average Risk Weight % (RW%)	Value adjustments	Expected Loss	RWA
Class 01													
Class 02	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 03	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 04	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 05	534,698	534,615	83,993	472,125	4.55%	82	0.13%	22.87%	-	7.27%	27	25	6,107
Class 06	203,483	202,964	75,536	142,085	10.32%	16	0.20%	21.46%	-	9.21%	45	32	6,961
Class 07	254,601	253,845	110,505	163,292	12.22%	28	0.30%	22.57%	-	12.65%	101	75	13,980
Class 08	234,177	232,221	125,288	133,251	19.75%	15	0.46%	22.07%	-	16.04%	172	127	20,100
Class 09	288,936	286,263	144,867	165,480	14.55%	22	0.69%	22.82%	-	20.68%	504	228	29,955
Class 10	278,101	275,105	140,652	149,225	9.90%	23	1.05%	21.34%	-	23.48%	1,073	315	33,030
Class 11	231,852	229,734	140,690	108,602	18.01%	21	1.59%	24.31%	-	31.13%	2,036	544	43,798
Class 12	152,542	150,211	95,155	60,353	8.78%	18	2.42%	22.36%	-	31.87%	3,082	515	30,330
Class 13	121,186	119,896	97,011	24,614	7.02%	11	3.99%	22.02%	-	33.71%	5,083	852	32,700
Class 14	47,727	47,022	36,841	11,188	9.00%	14	6.31%	21.65%	-	34.77%	2,467	503	12,811
Class 15	25,002	24,809	19,563	5,940	11.68%	3	9.95%	20.26%	-	36.00%	1,436	394	7,042
Class 16	15,489	15,337	13,216	2,177	2.61%	2	16.03%	21.36%	-	45.88%	1,122	452	6,064
Class 17	7,509	7,468	6,787	724	5.89%	1	22.12%	18.92%	-	46.50%	482	284	3,156
Class 18	3,090	3,074	2,830	552	55.96%	4	31.63%	19.03%	-	52.16%	370	170	1,476
Class 19	2,403	2,374	2,228	171	14.45%	7	45.00%	22.18%	-	62.07%	360	222	1,383
Class 20	150,936	150,855	142,057	10,577	16.81%	75	100.00%	42.98%	-	-	82,120	63,612	-
Total as at 31/12/2020	**2,551,733**	**2,535,792**	**1,237,219**	**1,450,357**	**10.42%**	**342**	**1.99%**	**22.37%**	**-**		**100,483**	**68,353**	**248,895**
Total as at 31/12/2019	**2,989,626**	**2,985,141**	**1,728,465**	**1,389,308**	**9.52%**	**406**	**2.06%**	**22.36%**	**-**		**275,686,183**	**197,095,789**	**292,725,250**

[a] *For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds.*
[B] *The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.*

Exposures subject to the AIRB approach broken down by geographical location

The Montepaschi Group operates almost exclusively in the domestic market. If the geographical location of the counterparties is considered, 100% of AIRB exposures are towards counterparties resident in Italy.
For the purposes of this disclosure and in accordance with Article 452 of the CRR, the relevant geographical location of credit exposures means exposures in the Member States in which the institution has been authorized and Member States or third countries in which institutions carry out activities through a branch or subsidiary. As far as credit risk is concerned, the Group is currently authorized to use internal estimates of PD, LGD parameters for portfolios of loans to locals counterparties (Companies and Retail Exposures) of the main Italian subsidiaries of the Group, namely Banca Monte dei Paschi di Siena, MPS Capital Services and MPS Leasing & Factoring. The other foreign subsidiary (MP Banque) adopts standard models and their exposures are included among those subjects to credit risk – the standard approach.
The Group also operates in Member States or third countries via foreign branches, whose operations focus on supporting the expansion of Italian businesses and investments abroad and in the major foreign financial markets. AIRB credit exposures (net of default) held by foreign branches amount to 0% and are entirely towards local counterparties (with headquarters/residence or domicile in Italy). The exposures are towards counterparties that were assigned an internal PD and LGD estimate since they are already counterparties of Italian subsidiaries and are reported under the Parent Company Banca MPS for regulatory purposes. Accordingly, the values of the exposure-weighted average PD and LGD by geographical location coincide with those reported in the tables above which show the AIRB exposures of authorized Italian subsidiaries broken down by class of exposure. Reported below are the credit exposures subject to the AIRB approach (net of default) according to the definition of geographical location described above, i.e. by Member State in which the institution has been authorized (Italy) and by Member State or third country in which the institution operates through a branch.

Tab. 5.3.11 – IRB approach: Exposures to or secured by corporates – Geographic Segmentation

	EAD	Incidence	Weighted Average PD	Weighted Average LGD	RWA	EL	AL
Italy	19,066,242	100.00%	2.18%	35.58%	11,714,434	137,948	246,637
Other EU Countries	-	-	-	-	-	-	-
Other not EU Countries	-	-	-	-	-	-	-
Total as at 31/12/2020	**19,066,242**	**100.00%**	**2.18%**	**35.58%**	**11,714,434**	**137,948**	**246,637**
Total as at 31/12/2019	**23,010,193**	**100.00%**	**2.31%**	**37.51%**	**16,360,565**	**188,801**	**229,776**

Tab. 5.3.12 – IRB approach: Retail Exposures – Geographic Segmentation

	EAD	Incidence	Weighted Average PD	Weighted Average LGD	RWA	EL	AL
Italy	37,042,878	100.00%	1.46%	17.15%	6,361,920	112,972	261,727
Other EU Countries	-	-	-	-	-	-	-
Other not EU Countries	-	-	-	-	-	-	-
Total as at 31/12/2020	**37,042,878**	**100.00%**	**1.46%**	**17.15%**	**6,361,920**	**112,972**	**261,727**
Total as at 31/12/2019	**38,505,432**	**100.00%**	**1.43%**	**18.60%**	**6,848,519**	**133,568**	**197,786**

Comparison between expected loss and actual loss

As part of the *backtesting* of the parameters of AIRB models, the MPS Group makes a comparison between the expected loss estimated at 31 December of the previous year and the actual loss observed at year end. In order to clarify the results of the comparison it should be noted that although the two amounts are comparable, they are calculated on the basis of different logics.

Expected Loss (PA) is the average loss that the bank expects to face against a loan or loan portfolio classified as *performing* at the end of the previous year. It is calculated as the product between PD, LGD and EAD estimated in compliance with the prudential requirements; in particular, PD is estimated using a longer time series and thus better reflects risk in the portfolio on a *through-the-cycle* (TCC) basis.

Actual Loss is calculated as the total amount of provisions which were actually registered and recognised in the income statement *on performing* exposures as at 31 December of the previous year subsequently classified to default status one year later, calculated in accordance with FRS9 international accounting principle.

Taking into account what has been observed, i.e. that the expected loss expresses an estimation of loss essentially calculated on a TTC basis whereas the actual loss refers to what has been registered and recognised in a specified year, a comparison is provided between expected loss and actual loss ex-post in 2018, 2019 and 2020 on corporate and retail exposures.

Tab. 5.3.13 – Comparison Expected Loss – Actual Loss

Reference Year	Portfolio	Expected Loss	Actual Loss	EL vs AL (var %)
2018	Exp. vs Corporates	342,000	257,000	-24.9%
	Retail Exp.	42,000	46,000	9.5%
	Secured by real estate: Individuals	34,000	33,000	-2.9%
	Other retail Exposures - Individuals	8,000	13,000	62.5%
	QRE	-	-	
	Specialised Lending	24,000	-	-100.0%
	TOTAL	**408,000**	**303,000**	**-25.7%**
2019	Exp. vs Corporates	300,000	182,000	-39.3%
	Retail Exp.	33,000	34,000	3.0%
	Secured by real estate: Individuals	26,000	24,000	-7.7%
	Other retail Exposures - Individuals	7,000	10,000	42.9%
	QRE	-	-	
	Specialised Lending	20,000	6,000	-70.0%
	TOTAL	**353,000**	**222,000**	**-37.1%**
2020	Exp. vs Corporates	292,000	166,000	-43.2%
	Retail Exp.	30,000	41,000	36.7%
	Secured by real estate: Individuals	24,000	29,000	20.8%
	Other retail Exposures - Individuals	6,000	12,000	100.0%
	QRE	-	-	
	Specialised Lending	20,000	-	-100.0%
	TOTAL	**342,000**	**207,000**	**-39.5%**

Expected loss and actual loss values refer respectively to the expected loss registered at the start of the year and the actual loss registered at year-end on a sample of exposures analysed. The sample relates to the exposures of positions which at the start of the year were classified as performing and which transitioned to default status in the course of the year. Corporate exposures also include regulatory classes of exposures secured by real estate - SMEs and other retail exposures - SMEs.

The comparison shows that for the year 2018 and 2019, the expected loss is basically aligned with the actual loss. The same holds true for 2020.

The segment Other Retail exposures to individuals showed the largest difference between actual loss and expected loss registered in 2020.

Total Expected Loss is larger than Actual Loss and this can be explained by the different estimation methods used: the Expected Loss is based on through-the-cycle PD, estimated using default rates over a 7-year horizon which includes years in which the Group carried out reclassification activites, thus determining high default rates over the time series used in the estimation of the PDs, and used regulatory LGDs (which include the downturn component). The Actual Loss is based on accounting parameters.

Comparison between estimated and actual results of backtesting (EU CR9)

As previously pointed out, the Monte dei Paschi Group adopts advanced models to determine capital requirements for 'corporate' and 'retail' portfolios. Internally estimated PD (Probability of Default) and LGD (Loss Given Default) parameters are therefore used for both portfolios.

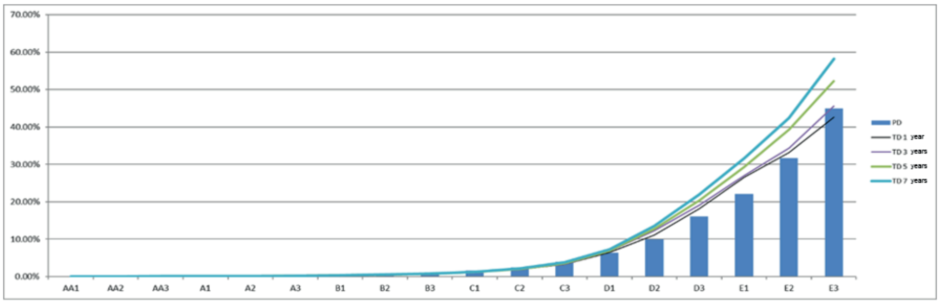
A comparison of estimated vs. actual losses is made on a yearly basis within the framework of PD and LGD *backtesting* by internal first and second level control functions.

As for PD, statistical models are monitored using a structured automated algorithm. Monitoring consists in a determined number of tests aimed at assessing whether the characteristics of the models in the implementation/production environment continue to be similar to those found in the development phase, in terms of representativeness and performance. Within the monitoring process, estimated PDs are compared against observed default rates through a set of tests designed to verify the alignment between the Probability of Default and Default Rates both for the latest period of reference and for the time series equal to the one used for estimation, in line with the development methodological approach based on long-term average values. The overall outcome is formulated on the basis of an internal protocol, which also includes the actions to be put in place in the event of a negative outcome.

Comparison between PD and Default Rates observed by rating class for the Corporate segment

The following tables show the comparison between regulatory PD and default rates observed by rating class for the Corporate segment on different time series.

Corporate Segment



CLASS	AA1	AA2	AA3	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	E1	E2	E3
TD 1 year	0.00%	0.00%	0.17%	0.07%	0.15%	0.40%	0.46%	0.65%	0.78%	1.20%	1.98%	3.20%	6.46%	11.15%	18.10%	26.54%	33.17%	42.68%
TD 3 years	0.00%	0.00%	0.10%	0.10%	0.17%	0.25%	0.41%	0.53%	0.79%	1.16%	2.02%	3.35%	6.74%	12.29%	19.09%	26.97%	34.42%	45.56%
TD 5 years	0.00%	0.05%	0.08%	0.12%	0.16%	0.27%	0.37%	0.56%	0.79%	1.21%	2.03%	3.54%	6.86%	12.80%	20.40%	29.32%	39.31%	52.27%
TD 7 years	0.00%	0.04%	0.08%	0.12%	0.15%	0.27%	0.36%	0.56%	0.81%	1.27%	2.16%	3.78%	7.33%	13.56%	21.90%	31.65%	42.43%	58.27%
PD	0.03%	0.05%	0.09%	0.13%	0.20%	0.30%	0.46%	0.69%	1.05%	1.59%	2.42%	3.99%	6.31%	9.95%	16.03%	22.12%	31.63%	45.00%

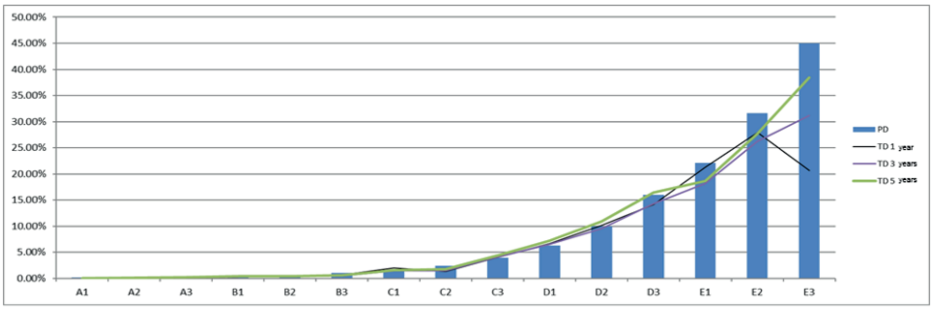
The comparison above shows how the alignment between regulatory PD, calculated on a TTC basis, and average default rates on both the last year and the last three years. In particular, average default rates are lower than the PD classes that correspond to better classes mapped in the Master Scale and slightly higher for the worst rating classes.

The results of the annual calibration tests were satisfactory for all the Corporate models. The performances of Corporate models in terms of discriminative power were, on the other hand, fully positive and confirmed the good *grading* ability of the models, with levels of accuracy that were very much in line with the ranges recognised in AIRB PD model *best practices*.

Comparison between PD and Default Rates observed by Rating Class for the Retail segment

The information shown for the Retail segment is similar to that reported for the Corporate models.

Retail Segment



CLASS	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	E1	E2	E3
TD 1 year	0.05%	0.14%	0.20%	0.27%	0.45%	0.61%	1.97%	1.30%	4.06%	6.72%	10.17%	14.14%	21.28%	27.89%	20.59%
TD 3 years	0.05%	0.13%	0.20%	0.31%	0.38%	0.52%	1.51%	1.43%	4.10%	6.54%	9.56%	14.33%	18.21%	26.19%	31.18%
TD 5 years	0.06%	0.15%	0.23%	0.38%	0.44%	0.58%	1.57%	1.77%	4.39%	7.23%	10.93%	16.41%	18.69%	27.66%	38.47%
PD	0.13%	0.20%	0.30%	0.46%	0.69%	1.05%	1.59%	2.42%	3.99%	6.31%	9.95%	16.03%	22.12%	31.63%	45.00%

The default rates observed for the Retail segment are broadly in line with regulatory PD, lower than the PD observed on the first and last classes of the scale, while in some cases they slightly exceed the PD in the middle, band C, and first classes of band D. The default rates shows a an essentially monotonic upward trend as the riskiness of the rating classes increases.

The performances of Retail models in terms of discriminative power were positive and confirmed the good *grading* ability of the models, with levels of accuracy that were in line with the ranges recognised in AIRB PD model *best practices*

5.4 Credit Risk: credit quality

At each reporting date, according to IFRS 9, all financial assets not measured in the financial statements at *fair value* through profit and loss, represented by debt securities and loans, and off-balance sheet exposures (commitments and guarantees given) must use the new *impairment* model based on expected losses (ECL - *Expected Credit Losses*).

In particular, the following are included in the scope of *impairment* testing:

- "Financial assets measured at amortised cost";
- "Financial assets measured at *fair value* through other comprehensive income" other than equity securities;
- Commitments to disburse provisions and guarantees given that are not measured at fair value through P&L; and
- Trade receivables or assets deriving from contracts that result from transactions falling under the scope of IFRS 15.

The losses must be recorded not only with reference to objective evidence of losses in value that are already apparent at the measurement date, but also based on expectations of future losses of value that have not yet occurred.

In particular, the ECL model provides the aforementioned financial assets must be classified in three distinct "stages", according to their credit quality in absolute terms or relative to that at initial disbursement, to which different measurement criteria for expected losses are applied. More specifically:

- Stage 1: includes *performing* financial assets for which there has been no significant increase in credit risk with respect to the initial recognition date; the value adjustments correspond to the expected losses related to the verification of default in the 12 months following the reporting date.
- Stage 2: includes *performing* exposures that have incurred a significant increase in credit risk with respect to the initial recognition date. Adjustments are calculated considering the *lifetime* loss of the instrument;
- Stage 3: includes financial assets that are considered *non-performing* that present objective evidence of deterioration and which must be adjusted by using the *lifetime* expected loss concept.

For MPS Group, the perimeter of exposures classified under stage 3 corresponds to non-performing exposures, identified according to the definitions established by supervisory regulations (Bank of Italy Circular no. 272 "Accounts matrix"). In particular, the Circular identifies the following categories:

- Bad loans;
- Unlikely to pay;
- Past due and/or overdrawn exposures

As regards assessment, for bad loans and unlikely to pay positions with a gross exposure exceeding EUR 1 mln valuation is analytical, carried out by managers. For all remaining non-performing exposures, the valuation is carried out statistically

The analytical valuation carried out by managers gives two *impairment* data which, added up together, determine the write-down at the individual relationship level: the first value depends on the identification, through expert prudential assessments, of the sources for reverting back to a performing status, both in a *going concern* scenario and *gone concern* scenario; the second value given by the impairment losses determined by the maturity of each recovery plan and by the internal rate of return of each relation.

For further information regarding value adjustments, please refer to the part E, Section 1 – Risks of accounting consolidation - Section A Credit Quality - Quantitative Information of Notes to the Consolidated Financial Statements as at 31.12.2020.

Quantitative information

The following tables provide a comprehensive picture of the credit quality of the Group and an overview of nonperforming and forborne exposures.

Tab. 5.4.1 (EU CR1-A) – Credit quality of exposures by exposure class and instrument

		a	b	c	d	e	f	g
		Gross carrying values of:						
		Defaulted exposures	Non-defaulted exposures	Specific credit risk adjustments	General credit risk adjustment	Accumulated write-off	Credit risk adjustments charges of the period	Net Value (a+b-c-d)
1	Central governments or central banks	-	-					-
2	Institutions	-	-	-				-
3	Corporates	4,406,992	38,400,545	1,303,560				41,503,976
4	*Of which: SMEs*	*1,821,928*	*17,583,107*	*978,947*				*18,426,088*
5	*Of which: other corporates*	*2,585,063*	*20,817,438*	*324,613*				*23,077,888*
6	**Retail**	**5,790,671**	**44,762,226**	**994,479**				**49,558,418**
7	Secured by real estate property	4,037,278	29,857,040	397,563				33,496,755
8	*SMEs*	*501,412*	*4,157,431*	*187,477*				*4,471,366*
9	*Non-SMEs*	*3,535,867*	*25,699,609*	*210,086*				*29,025,389*
10	Qualifying revolving	14,649	140,339	612				154,376
11	Other retail	1,738,744	14,764,847	596,303				15,907,287
12	*SMEs*	*1,449,808*	*12,502,049*	*495,821*				*13,456,037*
13	*Non-SMEs*	*288,936*	*2,262,797*	*100,483*				*2,451,250*
14	Equity							-
15	**Total AIRB approach**	**10,197,663**	**83,162,771**	**2,298,039**	**-**			**91,062,394**
16	Central governments or central banks	-	43,053,348		21,190			43,032,158
17	Regional governments or local authorities	-	2,128,592		3,574			2,125,018
18	Public sector entities	-	655,031		1,567			653,464
19	Multilateral development banks	-	86,547		3			86,544
20	International organisations	-	-		-			-
21	Institutions	-	44,778,879		9,512			44,769,367
22	Corporates	-	5,649,367		11,723			5,637,644
23	*Of which: SMEs*		*1,469,750*		*2,270*			*1,467,479*
24	Retail	-	1,711,708		7,249			1,704,459
25	*Of which: SMEs*		*874,351*		*1,647*			*872,704*
26	Secured by mortgages on immovable property	-	1,187,682		4,959			1,182,723
27	*Of which: SMEs*		*309,327*		*1,577*			*307,750*
28	Exposures in default	872,204	-		349,010			523,194
29	Items associated with particularly high risk	8,780	367,650		4,049			372,380
30	Covered bonds	-	686,723		534			686,190
31	Exposures to institutions and corporates with a short-term credit assessment	-	-		-			-
32	Collective investments undertakings	-	424,186		580			423,606
33	Equity exposures	1,886	858,838		-			860,723
34	Other exposures	-	5,955,605		2,754			5,952,851
35	**Total standardised approach**	**882,869**	**107,544,157**	**-**	**416,704**			**108,010,322**
36	**Total**	**11,080,532**	**190,706,928**	**2,298,039**	**416,704**			**199,072,717**
37	*Of which: Loans*	*128,744,633*		*2,180,610*	*411,750*			*126,152,273*
38	*Of which: Debt securities*	*33,331,034*		*24,166*	*382*			*33,306,487*
39	*Of which: Off-balance-sheet exposures*	*41,315,723*		*129,168*	*4,572*			*41,181,983*

The figures shown in the table under IRB approach do not include specialised lending-slotting criteria.

Subsequent to the public consultation process launched in April, in December 2018 the EBA published the final version of the document "*Guidelines on disclosures of non-performing and forborne exposures*" (EBA/GL/2018/10), effective as of 31 December 2019 (in line with the "Guidelines for banks on non-performing loans", published by the ECB in March 2017) and aimed at promoting consistency in NPL *disclosure* requirements. This document has been taken into account in the preparation of the following tables.

In December 2020, the partial non-proportional demerger transaction with asymmetric option in favour of AMCO was completed. The transaction involved the transfer of a non-performing loans portfolio with gross book value at the reference date of 7.1 €bn (approx. 8.1 €bn at the end of 2019). The finalization of the demerger allowed the MPS Group to lower the NPE Ratio below the threshold expected by the authorities, equal to 5%. The main differences compared to the previous include all representations of non-performing loans.

Tab. 5.4.2 – Credit quality of forborne exposures (Template 1 – EBA GL 2018/10)

		a	b	c	d	e	f	g	h
		Gross carrying amount/nominal amount of exposures with forbearance measures				Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions		Collateral received and financial guarantees received on forborne exposures	
		Performing forborne	Non-performing forborne			On performing forborne exposures	On non-performing forborne exposures		Of which collateral and financial guarantees received on non-performing exposures with forbearance measures
				Of which defaulted	Of which impaired				
1	**Loans and advances**	**1,555,758**	**1,260,404**	**1,260,404**	**1,193,572**	**-124,780**	**-485,877**	**1,746,371**	**536,304**
2	*Central banks*	-	-	-	-	-	-	-	-
3	*General governments*	7,207	149	149	149	-118	-67	-	-
4	*Credit institutions*	-	-	-	-	-	-	-	-
5	*Other financial corporations*	40,086	13,531	13,531	6,217	-154	-9,394	40,726	1,371
6	*Non-financial corporations*	861,483	949,430	949,430	889,991	-93,012	-397,654	917,424	329,883
7	*Households*	646,983	297,294	297,294	297,216	-31,496	-78,761	788,222	205,050
8	**Debt securities**	**22,691**	**1,138**	**1,138**	**-**	**-**	**-1,138**	**-**	**-**
9	**Loan commitments given**	**35,762**	**31,028**	**31,028**	**31,028**	**73**	**-**	**18,178**	**5,011**
10	**Total**	**1,614,211**	**1,292,570**	**1,292,570**	**1,224,600**	**-124,707**	**-487,015**	**1,764,550**	**541,316**

The figures shown in the table do not include the amounts relating to assets held for sale. Forborne exposures were not significantly affected by contract amendments granted by the Group to performing debtors as of 31 December 2019, in difficulty following the outbreak of the COVID-19 pandemic, as laid down by the specific indications published by the EBA. In line with the established guideline EBA/GL/2020/15, amending guideless EBA/GL/2020/02 on moratoria, in December the Group started activities to verify the classification on first-time applications or extension of payment suspension measures. In particular, the variation observed on loans and advances to households is linked to the combined use of internal performance data and external behavioral scores. The changes in non-performing exposures are entirely attributable to the demerger of the portfolio in favour of AMCO.

Tab. 5.4.3 –- Quality of forbearance (Template 2 – EBA GL 2018/10)

		a
		Gross carrying amount of forborne exposures
1	Loans and advances that have been forborne more than twice	188,863
2	Non-performing forborne loans and advances that failed to meet the nonperforming exit criteria	482,578

Tab. 5.4. 4 – Distribution of exposures by maturity bands (Template 3 – EBA GL 2018/10)

		a	b	c	d	e	f	g	h			i	j
		Gross carrying amount/nominal amount											
		Performing exposures			Non-performing exposures								
		Total	Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days	Total	Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
1	**Loans and advances**	**84,994,504**	**84,620,394**	**374,110**	**3,994,146**	**1,235,903**	**124,178**	**424,974**	**388,120**	**708,506**	**605,535**	**506,931**	**3,994,146**
2	Central banks	20,001	20,001	-	-	-	-	-	-	-	-	-	-
3	General governments	1,769,583	1,747,451	22,132	281,030	79,405	1	2,312	1,275	1,988	195,584	465	281,030
4	Credit institutions	3,898,692	3,898,413	279	3,172	-	-	-	-	3,172	-	-	3,172
5	Other financial corporations	10,469,333	10,469,088	245	21,487	6,463	62	229	4,650	9,303	663	117	21,487
6	Non-financial corporations	33,963,899	33,722,854	241,045	2,712,219	883,447	64,857	264,201	267,330	506,616	309,257	416,511	2,712,219
7	*Of which SMEs*	*22,453,280*	*22,341,136*	*112,144*	*2,174,400*	*567,441*	*55,483*	*174,048*	*231,455*	*463,241*	*285,365*	*397,368*	*2,174,400*
8	Households	34,872,996	34,762,587	110,410	976,238	266,587	59,258	158,231	114,864	187,426	100,031	89,839	976,238
9	**Debt securities**	**15,986,143**	**15,921,929**	**64,214**	**19,838**	**1,138**	**-**	**-**	**-**	**18,700**	**-**	**-**	**19,838**
10	Central banks	-	-	-	-	-	-	-	-	-	-	-	-
11	General governments	12,149,986	12,101,886	48,100	-	-	-	-	-	-	-	-	-
12	Credit institutions	1,321,214	1,305,100	16,114	-	-	-	-	-	-	-	-	-
13	Other financial corporations	2,224,777	2,224,777	-	18,700	-	-	-	-	18,700	-	-	18,700
14	Non-financial corporations	290,167	290,167	-	1,138	1,138	-	-	-	-	-	-	1,138
15	**Off-balance-sheet exposures**	**41,903,324**			**1,014,227**								**1,014,227**
16	Central banks	66			-								-
17	General governments	1,266,867			128,218								128,218
18	Credit institutions	1,807,490			6,292								6,292
19	Other financial corporations	8,908,259			3,805								3,805
20	Non-financial corporations	27,209,292			838,538								838,538
21	Households	2,711,350			37,373								37,373
22	**Total**	**142,883,971**	**100,542,323**	**438,324**	**5,028,210**	**1,237,041**	**124,178**	**424,974**	**388,120**	**727,206**	**605,535**	**506,931**	**5,028,210**

Exposures relating to Loans and Advances and to Debt Securities are represented by assets valued at amortised cost and by assets that must necessarily be valued at fair value. The figures shown in the table do not include the amounts relating to assets held for sale and debt securities and derivatives included in the item Financial assets held for trading. The gross NPL ratio, which is calculated as column (d) row (1) divided by the sum of column (d) row (1) plus column (a) row (1), is equal to 4.49% showing a sizeable reduction as a result of the finalization of the demerger of a portfolio of loans to AMCO. As of 31 December 2020, insolvency flows at the lowest levels in the 10 years can be observed, as a result of the specific initiatives implemented by the State and the Banking System to support customers most affected by the current economic crisis.

Tab. 5.4.5 – Performing and non-performing exposures and related provisions (Template 4 – EBA GL 2018/10)

		a	b	c	d	e	f	g	h	i	j	h	l	m	n	o
		Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions						Accumulated partial write-off	Collateral and financial guarantees received	
		Performing exposures			Non-performing exposures			Performing exposures – accumulated impairment and provisions			Non-performing exposures – accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions				On performing exposures	On non-performing exposures
		Total	of which STAGE 1	of which STAGE 2	Total	of which STAGE 1	of which STAGE 2	Total	of which STAGE 1	of which STAGE 2	Total	of which STAGE 1	of which STAGE 2			
1	**Loans and advances**	**84,994,504**	**69,453,155**	**15,419,523**	**3,994,146**	**-**	**3,922,481**	**-595,271**	**-77,069**	**-518,202**	**-1,841,749**	**-**	**-1,791,422**	**-145,989**	**65,457,052**	**1,515,319**
2	Central banks	20,001	20,001	-	-	-	-	-	-	-	-	-	-	-	-	-
3	General governments	1,769,583	1,709,218	60,365	281,030	-	281,030	-5,359	-4,033	-1,326	-122,379	-	-122,379	-4	121,696	30,740
4	Credit institutions	3,898,692	3,898,551	141	3,172	-	3,172	-2,154	-2,138	-17	-3,093	-	-3,093	-	896,032	-
5	Other financial corporations	10,469,333	10,363,242	103,871	21,487	-	14,173	-4,618	-3,683	-935	-14,350	-	-7,163	-210	8,308,847	3,839
6	Non-financial corporations	33,963,899	22,823,977	11,049,835	2,712,219	-	2,648,891	-421,405	-45,115	-376,290	-1,377,887	-	-1,335,048	-142,224	23,150,218	906,243
7	*Of which SMEs*	*22,453,280*	*13,980,794*	*8,439,310*	*2,174,400*	-	*2,132,490*	*-345,086*	*-29,632*	*-315,454*	*-1,141,407*	-	*-1,129,281*	*-14,314*	*17,446,477*	*807,690*
8	Households	34,872,996	30,638,167	4,205,311	976,238	-	975,216	-161,735	-22,100	-139,634	-324,040	-	-323,740	-3,552	32,980,258	574,497
9	**Debt securities**	**15,986,143**	**15,751,081**	**18,725**	**19,838**	**-**	**-**	**-18,535**	**-17,935**	**-600**	**-19,838**	**-**	**-**	**-**	**-**	**-**
10	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	General governments	12,149,986	12,101,881	-	-	-	-	-11,328	-11,328	-	-	-	-	-	-	-
12	Credit institutions	1,321,214	1,290,227	14,794	-	-	-	-3,450	-3,028	-422	-	-	-	-	-	-
13	Other financial corporations	2,224,777	2,095,428	-	18,700	-	-	-770	-770	-	-18,700	-	-	-	-	-
14	Non-financial corporations	290,167	263,545	3,931	1,138	-	-	-2,987	-2,809	-177	-1,138	-	-	-	-	-
15	**Off-balance-sheet exposures**	**41,903,324**	**37,698,247**	**1,142,480**	**1,014,227**	**-0**	**1,011,322**	**34,111**	**12,006**	**11,190**	**119,970**	**-**	**119,970**		**12,446,152**	**199,739**
16	*Central banks*	**66**	**66**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**		**-**	**-**
17	*General governments*	**1,266,867**	**1,245,633**	**21,235**	**128,218**	**-**	**128,218**	**97**	**66**	**31**	**-**	**-**	**-**		**15,034**	**5,648**
18	*Credit institutions*	**1,807,490**	**1,779,990**	**-**	**6,292**	**-**	**6,292**	**865**	**865**	**-**	**-**	**-**	**-**		**90,404**	**-**
19	*Other financial corporations*	**8,908,259**	**6,998,328**	**9,730**	**3,805**	**-**	**3,805**	**263**	**221**	**42**	**243**	**-**	**243**		**5,845,682**	**2**
20	*Non-financial corporations*	**27,209,292**	**25,054,637**	**1,022,572**	**838,538**	**-**	**836,353**	**29,575**	**8,291**	**10,378**	**114,876**	**-**	**114,876**		**6,000,437**	**187,605**
21	*Households*	**2,711,350**	**2,619,593**	**88,943**	**37,373**	**-**	**36,654**	**3,311**	**2,563**	**739**	**4,851**	**-**	**4,851**		**494,594**	**6,485**
22	Total	142,883,971	122,902,483	16,580,727	5,028,210	-	4,933,803	-579,695	-82,998	-507,612	-1,741,617	-	-1,671,453	-145,989	77,903,204	1,715,058

Exposures relating to Loans and Advances are represented by assets measured at amortised cost, asset measured at FVOCI, and cash. Exposures relating to Debt Securities are represented by assets measured at amortised cost and asset measured at FVOCI. The total does not include off-balance sheet exposures. The figures shown in the table do not include amounts relating to assets held for sale and debt securities and derivatives included in the item Financial assets held for trading. Following the outbreak of the COVID-19 pandemic, which has triggered an ongoing economic crisis and caused global and national economic forecasts to undergo important changes, the Group has updated its risk assessment tools and related losses. The forecast macroeconomic scenarios relating to the 2020-2022 period led to a significant change in exposures classified as "significant risk" (stage 2 - IFRS9) as well as an increase in adjustments on the entire portfolio and on non-performing loans deriving from the changed macroeconomic scenario due to the spread of the COVID-19 pandemic. The slowdown in the flow of observed defaults, because of customer support measures, has led the Group to extend to 2021 a macroeconomic scenario undermined by the effects of the Covid-19 pandemic, which is why a high level of exposures in Stage 2 is still observed. Changes in Stage 3 are driven by the finalization of the demerger of a portfolio of loans to AMCO.

Template 5 (EBA/GL 2018/10) "Quality of non-performing exposures by geography" has not been published as non-domestic original exposures in all non-domestic countries in all exposure classes were less than 10% of the total (domestic and non-domestic) original exposures.

Tab.5.4.6 – Credit quality of loans and advances by industry (Template 6 – EBA GL 2018/10)

		a	b	c	d	e	f
		Gross carrying amount					
			Of which: non-performing				
				Of which: defaulted	Of which: loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
1	Agriculture, forestry and fishing	1,217,959	49,889	49,889	1,214,448	-36,490	-
2	Mining and quarrying	86,918	20,809	20,809	86,752	-6,280	-30
3	Manufacturing	10,541,016	715,696	715,696	10,415,686	-408,581	-31,900
4	Electricity, gas, steam and air conditioning supply	1,196,475	60,879	60,879	1,188,201	-51,449	-
5	Water supply	752,877	42,036	42,036	752,877	-37,745	-
6	Construction	3,459,257	455,151	455,151	3,453,563	-310,199	-4,192
7	Wholesale and retail trade	6,412,017	340,711	340,711	6,407,853	-239,879	-60
8	Transport and storage	2,293,409	174,614	174,614	2,293,409	-88,756	-
9	Accommodation and food service activities	1,979,701	110,423	110,423	1,979,034	-109,474	-
10	Information and communication	667,023	43,165	43,165	667,023	-32,348	-
11	Financial and insurance activities	113,427	314	314	113,427	-1,028	-
12	Real estate activities	4,281,631	417,565	417,565	4,281,631	-265,592	-
13	Professional, scientific and technical activities	1,209,036	110,606	110,606	1,207,978	-69,376	-807
14	Administrative and support service activities	986,457	49,436	49,436	979,685	-30,131	-5,850
15	Public administration and defence, compulsory social security	1,071	1	1	1,071	-54	-
16	Education	37,588	1,540	1,540	37,588	-929	-
17	Human health services and social work activities	489,722	19,906	19,906	489,722	-19,713	-
18	Arts, entertainment and recreation	239,549	20,448	20,448	239,547	-13,600	-
19	Other services	710,986	79,030	79,030	710,986	-34,829	-
20	**Total**	**36,676,118**	**2,712,219**	**2,712,219**	**36,520,482**	**-1,756,453**	**-42,839**

No particular dynamics were observed at sectoral level during the period. In 2020 all sectors showed a growth linked to measures implemented by the Italian government to support companies' liquidity and which provide for the issuance of state guarantees. The average guaranteed value of around 89% makes the dynamics of adjustments unrelated to that of volumes. During December the macroeconomic forecast on sector performance was updated. In some sectors that were particularly affected (i.e., Accommodation and food service activities) the forecast of a slower recovery led to an increase in coverage. However, the figures are not shown in the Template as the reduction in adjustments due to the demerger in favour of AMCOR does not allow for a comparison with the previous reference date.

Tab.5.4.7 – Credit quality of loans and advances by industry (Template 7 – EBA GL 2018/10)

		a	b	c	d	e	f	g	h	i	j	k	l
		Loans and advances											
			Performing		Non performing								
						Unlikely to pay that are not past due or are past due <= 90 days	Past due > 90 days						
				Di cui scadute da > 30 giorni e ≤ 90 giorni				Of which past due >90 days <= 180 days	Of which: past due > 180 days <= 1 year	Of which: past due > 1 year <= 2 years	Of which: past due > 2 years <= 5 years	Of which: past due > 5 years <= 7 years	Of which: past due > 7 years
1	**Gross carrying amount**	**88,988,650**	**84,994,504**	**374,110**	**3,994,146**	**1,235,903**	**2,758,243**	**124,178**	**424,974**	**388,120**	**708,506**	**605,535**	**506,931**
2	*Of which secured*	*70,372,392*	*67,574,442*	*247,970*	*2,797,950*	*773,910*	*2,024,040*	*100,129*	*296,193*	*299,542*	*554,548*	*357,824*	*415,804*
3	*Of which secured with immovable property*	*43,275,380*	*41,416,579*	*176,787*	*1,858,801*	*496,075*	*1,362,726*	*75,891*	*206,468*	*188,258*	*325,547*	*271,822*	*294,740*
4	*Of which instruments with LTV higher than 60% and lower or equal to 80%*	*12,201,377*	*11,831,193*		*370,184*	*92,173*	*278,011*						
5	*Of which instruments with LTV higher than 80% and lower or equal to 100%*	*3,664,118*	*3,444,796*		*219,321*	*57,656*	*161,665*						
6	*Of which instruments with LTV higher than 100%*	*1,517,910*	*1,028,681*		*489,229*	*45,471*	*443,758*						
7	**Accumulated impairment for secured assets**	**-1,657,331**	**-471,648**	**-10,132**	**-1,185,682**	**-225,531**	**-960,151**	**-24,746**	**-88,280**	**-106,714**	**-261,364**	**-206,597**	**-272,450**
8	**Collateral**												
9	*Of which value capped at the value of exposure*	53,853,380	52,648,291	515,723	1,205,090	388,948	816,141	60,670	161,435	148,551	199,143	125,933	120,410
10	*Of which immovable property*	41,578,707	40,464,320	168,418	1,114,388	357,560	756,827	59,299	155,226	135,723	184,686	115,341	106,552
11	*Of which value above the cap*	61,872,417	58,872,051	248,171	3,000,366	986,256	2,014,110	-60,670	-161,435	-148,551	-199,143	-125,933	-120,410
12	*Of which immovable property*	59,302,790	56,710,541	246,792	2,592,249	949,349	1,642,900	-59,299	-155,226	-135,723	-184,686	-115,341	-106,552
13	Financial guarantees received	13,118,990	12,808,834	34,277	310,157	145,404	164,753	11,147	41,083	32,772	56,759	16,156	6,837
14	Accumulated partial write-off	-145,989	-6,271	-111	-139,718	-44,610	-95,108	-33	-308	-3,718	-41,526	-41,337	-8,187

UtoP exposures (<90 days) are linked to forbereance measures in favor fo non-performing customers currently in the cure period (12 months from the date of forbereance) as envisaged by the regulations for the reversal of Performing status.

Tab.5.4.8 – Changes in the stock of non-performing loans and advances (Template 8 – EBA GL 2018/10)

		Dec-20	
		a	b
		Gross carrying amount	Related net accumulated recoveries
1	**Initial stock**	**11,362,063**	
2	Inflows to non-performing portfolios	1,458,399	
3	Outflows from non-performing portfolios	-8,826,316	
4	Outflow to performing portfolio	-175,578	
5	Outflow due to loan repayment, partial or total	-589,126	
6	Outflow due to collateral liquidation	-40,523	38,924
7	Outflow due to taking possession of collateral	-	-
8	Outflow due to sale of instruments	-536,396	187,319
9	Outflow due to risk transfer	-	-
10	Outflow due to write-off	-320,343	
11	Outflow due to other situations	-7,164,351	
12	Outflow due to reclassification as held for sale	-	
13	**Final stock**	**3,994,146**	

The figures shown in the table are represented only by assets valued at amortised cost the figures shown in the table do not include amounts relating to assets held for sale and to assets that must necessarily be valued at fair value. The main variation in the item 'Outflow due to other situations' is linked to the demerger of the portfolio of loans in favor of AMCO with a gross book value at the reference date of 7.1 €/bn, net of changes that have taken place before December (8.1 €/bn at the beginning of the year).

Tab. 5.4.9 – Collateral obtained by taking possession and execution processes (Template 9 – EBA GL 2018/10)

		a	b
		Collateral obtained by taking possession	
		Value at initial recognition	Accumulated negative changes
1	Property, plant and equipment (PP&E)	750	-
2	Other than PP&E	80,524	-28,963
3	*Residential immovable property*	*62*	*-32*
4	*Commercial Immovable property*	*41,966*	*-18,922*
5	*Movable property (auto, shipping, etc.)*	-	-
6	*Equity and debt instruments*	*38,495*	*-10,009*
7	*Other*	-	-
8	**Total**	**81,274**	**-28,963**

The reason behind the differences relating to foreclosures and repossessions probably lies in the 'operational block' of such activities, due to the longer periods of closure of offices and courts.

Tab.5.4.10 – Collateral obtained by taking possession and execution processes - vintage breakdown (Template 10 – EBA GL 2018/10)

		a	b	c	d	e	f	g	h	i	j	k	l
		Debt balance reduction		Total collateral obtained by taking possessions									
						Foreclosed <= 2 years		Foreclosed > 2 years <= 5 years		Foreclosed > 5 years		Of which non-current assets held-for-sale	
		"Gross carrying amount"	"Accumulated negative changes"	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes	Value at initial recognition	Accumulated negative changes
1	Collateral obtained by taking possession classified as PP&E	750	-	750	-								
2	Collateral obtained by taking possession other than that classified as PP&E	428,811	-160,763	80,524	-28,963	10,667	-1,151	52,748	-15,535	17,109	-12,277	2,209	-2,209
3	*Residential immovable property*	-	-	*62*	*-32*	-	-	-	-	*62*	*-32*	-	-
4	*Commercial immovable property*	*67,428*	*-25,980*	*41,966*	*-18,922*	*8,004*	*-247*	*19,394*	*-8,908*	*14,569*	*-9,767*	-	-
5	*Movable property (auto, shipping, etc.)*	-	-	-	-	-	-	-	-	-	-	-	-
6	*Equity and debt instruments*	*361,383*	*-134,783*	*38,495*	*-10,009*	*2,663*	*-904*	*33,354*	*-6,627*	*2,478*	*-2,478*	*2,209*	*-2,209*
7	*Other*	-	-	-	-	-	-	-	-	-	-	-	-
8	**Total**	**429,561**	**-160,763**	**81,274**	**-28,963**	**10,667**	**-1,151**	**52,748**	**-15,535**	**17,109**	**-12,277**	**2,209**	**-2,209**

Tab. 5.4.11 – Credit Risk: value adjustment

	Dec-2020			
Prudential Perimeter	Defaulted Exposures	Performing Exposures	Mitigation Techniques	Net Value
IRB	**6,459,665**	**54,732,143**	**2,333,943**	**58,857,864**
of which: off-balance sheet (collateral and obbligations)	*-*	*3,532,256*	*129,168*	*3,403,088*
SMEs	815,279	9,897,298	978,947	9,733,630
Other companies	1,090,783	9,280,560	324,613	10,046,729
Specialized Lending - Slotting Criteria	37,851	1,372,813	35,905	1,374,760
Secured by real estate: SMEs	497,544	4,080,844	187,477	4,390,911
Secured by real estate: Individuals	3,371,460	24,258,412	210,086	27,419,785
Qualifying revolving	7,078	71,570	612	78,037
Other retail exposures: SMEs	494,803	4,678,293	495,821	4,677,276
Other retail exposures: Individuals	144,867	1,092,352	100,483	1,136,736
Securitization positions	-	-	-	2,875,378
STA	**596,533**	**78,593,466**	**416,704**	**78,773,295**
of which: off-balance sheet (collateral and obbligations)	*11,383*	*1,026,339*	*4,572*	*1,033,150*
Total as at 31/12/2020	**7,056,198**	**133,325,609**	**2,750,647**	**137,631,159**
Total as at 31/12/2019	**8,449,626**	**123,292,007**	**6,987,266**	**124,754,368**

*Securitization positions include all approaches.

On 2 June 2020, the EBA published its Guidelines on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis (EBA/GL/2020/07). These guidelines require that information be provided on:

1) loans and advances subject to moratoria on loan repayments applied in the light of the COVID-19 crisis, in accordance with EBA/GL/2020/02;
2) loans and advances subject to forbereance measures applied in the light of the COVID crisis;
3) newly originated loans and advances subject to public guarantee schemes introduced in response to COVID-19 crisis.

This document has been taken into account in the preparation of the following tables.

Tab. 5.4.12 – Information on loans and advances subject to legislative and non-legislative moratoria (Template 1 – EBA GL 2020/07)

		Gross carrying amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
		Performing	Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	Non performing	Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days		Performing	Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)	Non performing	Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days	Inflows to non-performing exposures
1	**Loans and advances subject to moratorium**	**9,777,744**	**603,115**	**4,622,832**	**62,433**	**20,594**	**60,381**	**-212,113**	**-193,813**	**-48,217**	**-177,344**	**-18,301**	**-5,524**	**-17,767**	**-**
2	of which: Households	2,768,830	277,723	1,209,025	16,984	7,525	16,213	-47,250	-44,094	-12,562	-40,881	-3,155	-1,528	-3,042	-
3	*of which: Collateralised by residential immovable property*	*2,236,532*	*234,336*	*985,968*	*12,661*	*6,171*	*12,099*	*-36,303*	*-34,267*	*-8,936*	*-32,336*	*-2,037*	*-1,231*	*-1,975*	-
4	of which: Non-financial corporations	7,008,913	325,392	3,413,808	45,449	13,069	44,168	-164,864	-149,719	-35,655	-136,463	-15,145	-3,996	-14,725	-
5	*of which: Small and Medium-sized Enterprises*	*6,264,357*	*305,337*	*3,110,926*	*43,894*	*13,059*	*42,872*	*-154,096*	*-139,478*	*-32,804*	*-128,620*	*-14,618*	*-3,992*	*-14,197*	-
6	*of which: Collateralised by commercial immovable property*	*3,603,184*	*184,765*	*1,801,100*	*24,338*	*7,570*	*24,338*	*-95,327*	*-87,003*	*-16,049*	*-79,324*	*-8,324*	*-1,334*	*-8,324*	-

Measures applied mainly consist of rescheduling of payments related to payment suspension.

Households accounts for 28% of the moratoria, while Non-financial corporations accounts for 72%.

With regard to Non-financial corporations, the following industry sectors were the most affected by moratoria: real estate activities and construction (25% of the total), manufacturing (25%), transport and logistics services (14%) and wholesale and retail sale (10%). Economic losses are calculated according to the Delta *Net Present Value* approach and are of insignificant amount in line with the actuarial neutrality of the measures provided for by the "Cura Italia" Decree (subsequently extended by the "August" Decree Law of 14 August 2020 and further extended, pursuant to Article 1 of the 2021 Budged Law of 30 December 2020).

Tab. 5.4.13 Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria (Template 2 – EBA GL 2020/07)

		a	b	c	d	e	f	g	h	i
		Number of obligors	Gross carrying amount							
				Of which: legislative moratoria	Of which: expired	Residual maturity of moratoria				
						<= 3 months	> 3 months <= 6 months	> 6 months <= 9 months	> 9 months <= 12 months	> 1 year
1	**Loans and advances for which moratorium was offered**	**101,815**	**13,776,390**							
2	**Loans and advances subject to moratorium (granted)**	**95,565**	**12,915,141**	**9,420,456**	**3,074,964**	**11,961,462**	**420,178**	**396,174**	**125,075**	**12,252**
3	of which: Households		5,083,200	2,771,412	2,297,386	4,489,035	246,735	298,455	42,079	6,896
4	*of which: Collateralised by residential immovable property*		*4,439,765*	*2,271,585*	*2,190,571*	*3,870,105*	*229,484*	*292,528*	*40,791*	*6,856*
5	of which: Non-financial corporations		7,831,940	6,649,044	777,578	7,472,427	173,443	97,719	82,996	5,356
6	*of which: Small and Medium-sized Enterprises*		*6,948,731*	*6,323,976*	*640,480*	*6,796,563*	*65,493*	*34,347*	*46,971*	*5,356*
7	*of which: Collateralised by commercial immovable property*		*4,098,466*	*3,571,066*	*470,945*	*3,919,642*	*86,203*	*28,938*	*58,479*	*5,204*

In March 2020, legislative measures were implemented to support business and households which faced liquidity shortages following the outbreak of the COVID-19 pandemic by payment suspension. The "Cura Italia" decree (Law Decree n. 18/2020), converted into Law n. 27/2020 of 29 April 2020, includes suspension of payments until September 30, 2020. Subsequently, Law Decree of August 2020 has provided for the extension of the legislative moratoria until 31 January 2021, and the extension to 31 March 2021 for the tourist-sector companies, for mortgage payments only. In addition, the Group has undertaken a series of System-level initiatives (in particular by the ABI) which provide for the suspention (up to 12 months following the Bank's initiatives) of the capital portion of loan repayment instalments.

In limited cases, due to particular difficulties in timely payment of their financial and other commitments, moratoria with a maturity of more than 12 months was granted. For this reason, as of the reporting date, most of the loans subject to suspension measures (92% of the total, 95% for companies) will resume payments of installments within three months. It should be noted that, as of the reporting date, of the approx. 3€/bn exposures that have benefitted from the moratorium, the suspension measures have expired.

Tab. 5.4.14 – Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis (Template 3 – EBA GL 2020/07)

		a	b	c	d
		Gross carrying amount		Maximum amount of the guarantee that can be considered	Gross carrying amount
			of which: forborne	Public guarantees received	Inflows to non-performing exposures
1	**Newly originated loans and advances subject to public guarantee schemes**	**6,207,783**	**42**	**4,836,799**	**-**
2	of which: Households	713,756			-
3	*of which: Collateralised by residential immovable property*	-			-
4	of which: Non-financial corporations	5,494,027	42	4,836,799	-
5	*of which: Small and Medium-sized Enterprises*	*4,107,195*			-
6	*of which: Collateralised by commercial immovable property*	*13,785*			-

In March 2020, legislative measures were implemented to facilitate new liquidity to support companies temporarily in difficulty due to the ongoing pandemic COVID-19 by issuing public guarantees (SACE, Fund for SMEs, ISMEA) that applied to loans disbursed to Banks starting from March 2020. On 7 June 2020, Law no. 40/2020, converting Law Decree no. 23/2020 ("Liquidity Decree"), was published in the Official Gazette no. 143 and provides for debt consolidation initiatives that are not classified as *forbereance measures*. Public guarantees schemes are not applied to non-performing loans originated prior the start of the financial crisis triggered by the COVID-19 pandemic.

As of 31 December 2020, out of the total disbursements of State-guaranteed loans, there has been an increase in the component related to the aforementioned measures, although "new finance" continues to be prevalent.

It is worth noting that in template 3, the gross carrying amount of Households is not included in the total amount of public guarantees because of the data structure but more than 90% of such exposures benefit from public guarantees.

5.5 Credit Risk: use of risk mitigation techniques

Compensation Policies

With reference to the retail and corporate loan portfolio, the Montepaschi Group does not apply any netting processes to the credit risk exposures with on- or off-balance sheet items with opposite sign. The Montepaschi Group adopts policies reducing counterparty risk with institutional counterparties, by entering into *netting agreements* according to the international ISDA and ISMA standards and related *collateral agreements* in relation to derivatives.

Management of collateral

The Montepaschi Group has fulfilled the obligations set out by EU Regulations (CRR 575/2013) for the purpose of recognition of risk mitigation effects produced by any existing collaterals securing the loan.

The disbursement of loans secured by collaterals is subject to specific control measures, differentiated by type of guarantee pledged, which are applied during the phase of disbursement and monitoring. Two main types of guarantees, subject to different regulations, can be identified by volumes of loans granted and number of customers, namely Mortgages and Pledges (cash and Securities).

With reference to compliance with the main organisation requirements for the mitigation of risk, the Group ensured:

- the presence of an IT system in support of the life cycle phases of the guarantees (acquisition, valuation, management, revaluation and enforcement);
- regulated policies for the management of guarantees (principles, practices, processes), available to the users;
- the presence of regulated, documented procedures for the management of guarantees (principles, practices, processes), available to the users;
- independence of the customers' insolvency risk (internal rating) from any existing collaterals.

For the purpose of limiting residual risks (termination or non-existence of the value of protection), the Montepaschi Group requires that:

- in the case of a mortgage guarantee, the acquisition of the right be flanked by the underwriting of insurance policies (catastrophic events) in relation to the assets covered by the guarantee, and a report prepared by reliable experts;
- in the case of a pledge, the original value should be reinstated (ensuring the continuity of the guarantee through papers amending the original guarantee) in view of the depreciation of goods pledged in the case of redemption of the pledge, the repayment should be made at the bank (collection).

The Montepaschi Group identified a set of technical forms (by purpose of the loan/type of customer) providing for the admissibility of mortgage guarantees. Within the IT system, the proposal of financing one of these types of loans triggers a request for detailed information on the characteristics of the real estate subject to guarantee (valuation) which, after loan approval, will make the acquisition steps compulsory.

In the specific case of mortgage loans to retail customers, the loan is disbursed according to specific disbursement processes, characterized by a standardised valuation/ inquiry process, which gather all information necessary for the proper management of real estate guarantees.

The Montepaschi Group has developed one single process for the acquisition of collaterals which is at the same time a working instrument and the expression of the Group's management policies. The instrument can activate different paths on the basis of the type of guarantee. The management of guarantees starts after loan disbursement approval, the process of which is broken down into different stages:

- acquisition (also multiple acquisition); the controls of (formal and amount) consistency with the guarantees proposed during the authorisation phase are performed in this stage;
- adjustment/change/amendment; useful to amend the characteristics of a guarantee without interrupting loan protection;
- query; gives information about the present data and the historical trend of guarantees received;
- repayment/cancellation.

A system monitoring the value of collaterals on the basis of market values is in place. If the measures for monitoring collaterals on loans show operational irregularities during the acquisition phase or any inadequacies/ losses of the values received as a pledge, events falling within the scope of credit monitoring *policies* are put in place, which trigger operational obligations of credit risk assessment. Monitoring of pledge transactions is carried out on a daily basis for listed securities deposited with the bank, whilst for mortgages the Group conducts half-yearly monitoring of the property value based on statistical methods.

The value of the property is estimated again:

- if monitoring activities point to a significant
- reduction in general market prices;
- in case of events of a managerial/ accounting nature with greater prudence than the regulatory criteria, defined in the Group's internal policy
- at least every three years for loans with exposures exceeding € 3 million or 5% of the Bank's own funds;.

In this respect, it is important to underline that an assessment is made on the assets pledged as collateral during the mortgage loan approval stage. In the specific case of Retail mortgage loans, a dedicated disbursement process subordinates disbursement to the submission of a technical survey on the asset pledged, thus ensuring the fulfillment of obligations and compliance with relevant validity requirements upon acquisition of the guarantee.

If the value of the property pledged as a guarantee is subject to market or foreign exchange risks, the Montepaschi Group uses the concept of guarantee differential, which is understood as a percentage of the value of the guarantee offered, determined as a function of asset value volatility. The only portion of the loan covered by the value of the assets net of the differential is considered as guaranteed during the approval phase. The monitoring phase requires the adjustment of the guarantees with a market value lower than the value approved, net of the differential. This is notified through a process of daily credit monitoring which alerts the Network with events which may modify risk perception.

The availability of collaterals does not alter the valuation of the insolvency risk of a customer. However, it has an impact on the approval process since loan disbursements with mitigated risk are subject to different discretionary powers (this difference at Banca MPS is even more marked due to the introduction of authorization levels dedicated only to Land and Building credit).

Collaterals accepted by the Montepaschi Group

The Montepaschi Group accepts different instruments to protect loans which can be summarised in the following categories:

- Pledge of sums deposited with the bank;
- Pledge of securities and mutual funds deposited with the bank;
- mortgages on immovables (real estate);
- mortgages on movables;
- Pledge of sums deposited with other banks;
- Pledge of securities deposited with other banks;
- Pledge on other entitlements (insurance policies not intermediated by Companies of the Group and Portfolios under management);
- Pledge on loans;
- Pledge on commodities;
- Other forms of collaterals (Insurance, Guarantee funds).

As at today, the pledge of sums and the pledge of securities and mutual funds deposited with the Parent Company and mortgages on properties account for essentially all of the nominal amount of collateral received and all of them ensure full compliance with regulatory/legal/organisational requirements set out by the Supervisory Regulations for the enforcement of *Credit Risk Mitigation* standards (Regulation EU no.575/2013, CRR).

All types that may be received by the Montepaschi Group are entered into a structured collateral management process, under which all sub-steps are operationally shared.

Management of personal guarantees

The Montepaschi Group has fulfilled the obligations set out by EU Regulations (CRR 575/2013) for the purpose of recognition of credit risk mitigation effects produced by any personal collaterals securing the loan.

Personal credit protection consists of personal collaterals, personal collaterals issued by third parties and credit derivatives. At Group level, personal collateral - as highlighted in the quantitative disclosure - covers a limited portion of the overall credit exposure. The main type of personal collateral consists of Guarantees (including omnibus guarantees and personal collateral issued by third parties) provided they are issued by the parties listed below:

- Sovereign governments and central banks;
- Public sector and local agencies;
- Multilateral development banks;
- Regulated intermediaries;
- Businesses that have a creditworthiness rating by an ECAI (External Credit Assessment Institution) of not less than 2 on the creditworthiness rating scale;
- Public sector entities;
- Credit institutions or investment firms subject to supervision and prudential requirements comparable to those applied to credit institutions or investment firms in the European Union;
- Other companies for which a credit rating from an ECAI is available or companies which the Group assesses internally using the IRB method;
- Central counterparty;
- A counterparty internally assessed by the Bank, based on its own validated model.

The activities that the MPS Group puts in place for compliance with the main organisational requirements are attributable to the similar activities envisaged for collateral other than real estate.

Under current regulations, banks which adopt the "advanced IRB" model may use the collateral as credit risk mitigation through personal guarantee adjusting PD or LGD estimates.

In both cases, mitigation is allowed, in addition to compliance with the personal guarantee eligibility constraint, provided that guaranteed exposures are not assigned adjusted PD or LGD values such that the post-adjustment risk weight (RW) is lower than that of a comparable direct exposure to the guarantor.

Based on Group internal regulations on CRM, the MPS Group has introduced two different policies for treatment of the exposures backed by personal guarantees, which fall within the AIRB scope. The first approach concerns exposures backed by guarantees issued by counterparties treated according to the Standard approach. The guarantees granted by these entities are treated by applying the weighting (RW) of the guarantor to the guaranteed portion of the exposure (substitution method). The second approach concerns all those exposures that fall within the AIRB perimeter assisted by personal guarantees issued by counterparties that also fall within the AIRB perimeter. In this case, a modelling approach is applied to the guaranteed exposure based on internal estimates (personal LGD) instead of the LGD for unsecured positions (unsecured LGD).

The substitution approach is also used for exposures to counterparties within the Standard scope.

Personal guarantees accepted by the Montepaschi Group

The Montepaschi Group accepts different instruments to protect loans which can be summarised in the following categories:

- Guarantees (including omnibus guarantees and personal guarantees issued by third parties);
- Endorsement;
- Guarantee policy;
- Credit mandate;
- Strong/binding patronage letters;
- Negotiable instruments;
- Performance bond agreement;
- Debt delegation;
- Expromission;
- Assumption of debt;
- Personal Collateral governed by foreign law;
- Credit derivatives:

- *credit default swap;*
- *total return swaps;*
- *credit linked notes.*

Debt delegation, expromission and assumption of debt are considered valid for the purpose of credit risk mitigation if equivalent to the transfer of credit.

Fifth-of-salary backed loans can be considered as loans secured by personal collateral, if all requirements for this form of credit protection are met in the overall transaction structure.

The main parties issuing the above credit-protection instruments are:

- Sovereign governments and central banks,
- Public sector and local agencies,
- Multilateral development banks,
- Regulated intermediaries,
- Guarantee institutions (Confidi),
- Companies and individuals.

Concentration of collaterals

The main concentration of collaterals is linked with Retail mortgage loans. However, it cannot be referred to as risk concentration by virtue of the principle of risk fragmentation which is implicit in this type of customer.

For the phase of monitoring the assets pledged, the Group has a policy establishing the amounts of the secured exposure and the age of the appraisal, beyond which the properties are appraised again. For exposures lower than the thresholds defined, the Group in any event conducts half-yearly monitoring of the property value based on market data.

Quantitative information

The values shown below refer to the exposures of the banking group considered for credit risk purposes, Standard approach and IRB approach, secured by financial collaterals, personal guarantees and credit derivatives. The exposures taken into consideration are determined according to prudential supervisory regulations, net of any netting agreements. Therefore, the values do not include all types of guarantees; for example, exposures guaranteed by real estate to which preferential risk weights are assigned by regulatory provisions and which are, therefore, directly reported in the same class, as shown in table 5.2.2 and table 5.3.1. Collateral on transactions secured by real estate are for marginal additional collateral received on these types of transactions. The Montepaschi Group does not have credit exposures hedged with credit derivatives, which are valid for the purpose of risk mitigation techniques. It follows, therefore, that the values reported under Personal Guarantees and credit derivatives refer to collateral received in the form of personal guarantees.

Tab. 5.5.1 – Credit risk mitigation techniques (Standard approach)

Regulatory Portfolio (Standard Approach)	Dec-2020			Dec-2019		
	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees
Exposures to central governments or central banks	-	-	-	-	-	-
Exposures to regional governments or local authorities	-	-	-	-	-	-
Exposures to public sector entities	14,969	42	-	14,844	41,650	-
Exposures to multilateral development banks	-	-	-	-	-	-
Exposures to international organisations	-	-	-	-	-	-
Exposures to institutions	33,952,766	-	-	28,590,518	-	-
Exposures to corporates	526,576	592,557	-	657,117	185,910	-
Retail exposures	29,217	157,948	-	36,043	55,202	-
Exposures secured by mortgages on immovable property	-	5,255	-	20	44,914	-
Exposures in default	1,254	81,370	-	5,751	3,619	-
Exposures associated with high risk	521	103,258	-	2,258	40	-
Exposures in the form of covered bonds	-	-	-	-	-	-
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Exposures to collective investments undertakings	191,194	-	-	140,916	-	-
Equity exposures	-	-	-	-	-	-
Other exposures	-	-	-	-	-	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-
Total standard approach	**34,716,497**	**940,430**	**-**	**29,447,468**	**331,335**	**-**

The column Financial Guarantees in the above table is a supplement to the Post CRM exposure reported in table 5.2.1 (values of exposures pre and post CRM), which shows the portion of exposure outstanding not covered by these collaterals. Please note that, pursuant to regulations, if the line-by-line method is applied, the collateral reduces risk exposure, whereas personal guarantees (simplified approach) transfer the related risk to the regulatory portfolio of the guarantor; thus the representation of personal guarantees in table 5.5.1 is broken down by collateralized exposure, whereas the same exposure, in line with the substitution principle, is shown in reference to the guarantor in table 5.2.2.

Tab. 5.5.2 – Credit risk mitigation techniques (IRB approach)

Regulatory Portfolio (IRB approach)	Dec-2020			Dec-2019		
	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees
Exposures to or secured by corporates:	1,245,790	6,463,738	-	589,469	2,331,631	-
- SMEs	92,502	3,629,327	-	109,360	1,454,148	-
- Other companies	1,153,288	2,834,410	-	480,109	877,483	-
- Specialized Lending	-	-	-	-	-	-
Retail exposures:	203,365	4,054,618	-	240,654	3,070,887	-
- secured by real estate: SMEs	2,718	90,524	-	3,443	79,042	-
- secured by real estate: Individuals	2,889	1,567,163	-	3,593	1,235,727	-
- Qualifying revolving	-	-	-	-	-	-
- Other retail exposures: SMEs	128,032	4,281,440	-	145,820	1,728,817	-
- Other retail exposures: Individuals	69,726	35,686	-	87,798	27,301	-
Total IRB approach	**1,449,155**	**10,518,355**	**-**	**830,123**	**5,402,518**	**-**

The values reported in the table above are referred to all of the AIRB-scope exposures to businesses and consumers, backed by collaterals or personal guarantees. Exposures to Businesses or Consumers backed by mortgage collateral on real estate, for which the Group adopts the AIRB approach, are not included in this table, as they have already been shown in the tables under the Section dedicated to the use of the AIRB method.

The following table provide the extent of the use of CRM techniques; it shows all collateral, financial guarantees and credit derivatives used as credit risk mitigants for all secured exposures, irrespective of whether the standardised approach or the IRB approach is used for RWA calculation.

Tab. 5.5.3 – (EU CR3) – CRM Techniques – Overview

		Unsecured exposures – Accounting value	Secured exposures – Accounting value	Exposures secured by real guarantees	Exposures secured by personal guarantees	Exposures guaranteed by credit derivatives
3	**Total as at 31/12/2020**	**151,448,279**	**47,624,437**	**36,165,652**	**11,458,785**	
4	*Of which defaulted*	*9,528,152*	*1,541,715*	*30,993*	*1,510,722*	
	Total as at 31/12/2019	**143,162,020**	**36,011,444**	**30,277,590**	**5,733,854**	

The following table shows the effect of all CRM techniques applied in accordance with Part Three, Title II, Chapter 4 of the CRR for standardised approach capital requirements' calculations.

Tab.5.5.4 – (EU CR4) – Standardised approach – Credit Risk Exposure and CRM effects

	Exposures class	Exposures before CCF and CRM		Exposures before CCF and CRM		RWAs and RWA density	
		On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA Density
1	Central governments or central banks	42,899,116	130,744	54,310,935	121,566	1,323,895	2.43%
2	Regional governments or local authorities	1,229,145	884,017	1,270,242	117,710	276,166	19.90%
3	Public sector entities	284,889	362,929	284,926	47,479	306,846	92.31%
4	Multilateral development banks	71,544	15,000	71,544	-	-	0.00%
5	International organisations	-	-	-	-	-	0.00%
6	Institutions	5,644,682	8,328,138	5,801,355	175,127	1,171,259	19.60%
7	Corporates	2,600,089	2,285,218	2,376,492	491,961	2,372,563	82.71%
8	Retail	772,842	931,462	605,080	57,586	455,277	68.70%
9	Secured by mortgages on immovable property	1,179,554	3,168	1,174,299	604	434,470	36.98%
10	Exposures in default	311,540	211,654	239,340	8,183	264,462	106.84%
11	Higher-risk categories	322,108	50,272	218,329	10,667	343,494	150.00%
12	Covered bonds	686,190	-	686,190	-	82,476	12.02%
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	0.00%
14	Collective investments undertakings	132,295	6,871	132,295	1,525	133,820	100.00%
15	Equity	860,723	-	860,723	-	1,641,002	190.65%
16	Other items	5,952,851	-	5,963,581	742	4,507,154	75.57%
17	**Total as at 31/12/2020**	**62,947,569**	**13,209,473**	**73,995,332**	**1,033,150**	**13,312,884**	**17.74%**
	Total as exposure	**76,157,043**		**75,028,482**			
18	**Total as at 31/12/2019**	**46,621,928**	**12,000,266**	**51,584,799**	**1,233,011**	**15,668,836**	**29.67%**
	Total as exposure	**58,622,194**		**52,817,810**			

6. Counterparty Risk

6.1 Counterparty Risk: general disclosure

The Montepaschi Group is committed to monitoring counterparty risk which, in accordance with the Regulatory provisions, is a specific type of credit risk and represents the risk of a counterparty in a transaction defaulting before the final settlement of the cash flows involved in the transaction. The regulations lay down specific rules for the quantification of the amount of the EAD - *Exposure At Default*, while referring to those governing credit risk for the determination of risk weightings.

In accordance with these regulations, counterparty risk is calculated for the following categories of transactions:

- financial and credit derivatives (*Over The Counter* (OTC) derivative and derivatives listed *Exchange Traded derivative* (ETD);
- SFTs – *Securities Financial Transactions* (repurchase agreements and securities lending);
- *Long Settlement Transactions* with medium to long-term settlement.

In conformity with regulatory requirements, the Montepaschi Group uses the “market value” method to calculate the value of exposures for derivatives and long settlement transactions. This method consists in calculating current and potential exposure using the market value as the current exposure and the regulatory *add-on* to represent, in a simplified manner, the potential future exposure.

For SFTs *(securities financing transactions)*, the comprehensive method with supervisory volatility adjustments is used.

The Group makes extensive use of netting and agreements to substantially mitigate the exposure to counterparties, subject to compliance with statutory requirements.

In order for risk to be managed effectively within the Bank, the counterparty risk measurement system, is integrated into decision-making processes. Risk exposure levels are subject to daily monitoring and reporting by the first and second level of control, based on proprietary systems. Annually, in accordance with the *Risk Appetite Framework*, the Parent Company has defined and approved operational limits for counterparty credit exposures in terms of EAD for derivatives and SFTs transactions. Such limits are expressed by level of delegated authority and subject to daily monitoring by the second level of control (Area Financial Risk Management). The management reporting flow on counterparty risk is periodically transmitted to the Risk Management Committee, the Group’s Top Management and the Parent Company’s Board of Directors in a Risk Management Report, which keeps Top Management and governing bodies up to date on the overall risk profile of the Group.

From an operational point of view, activities relevant for the purpose of counterparty risk may be broken down into two macro segments on the basis of both counterparty characteristics (ordinary clients and institutional counterparties) and the operational and monitoring methods put in place by the Group.

With regard to transactions with financial institutions, daily monitoring of the counterparty risk exposure is carried out on the single credit lines defined by Business Control Units.

In short, the process involves:

- credit facility to counterparties for which requests were received from BU, with periodic review of the maximum exposure level defined;
- inclusion of deals and supporting contracts in the systems, taking account of regulatory requirements and Group policies; ISDA/ISMA contracts are registered with their related *Credit Support Annex* (CSA) and *Global Master Repurchase Agreement* (GMRA) or *Global Master Securities Lending Agreement* (GMSLA), underwritten with each counterparty;
- daily activities to monitor and exchange collaterals with counterparties in relation to the market value of outstanding positions (*Collateral Management*);
- daily checks on the maximum level of exposure achieved, as well as its comparison with the maximum level of exposures envisaged for single counterparty, also in "real time" mode and evidence the overrunning of credit lines, taking into account the guarantees given or received;
- the legal function periodically checking whether netting clauses and collaterals set out in the bilateral agreements signed with the counterparties are judicially and administratively valid in the event of their default, by making reference to the case law of their respective countries. Please note that a downgrading of the Montepaschi Group does not impact the amount of guarantees to be provided since all minimum rating grades within the contractually agreed terms have already been achieved with immediate effects on the collateralization method (e.g. daily frequencies, null thresholds and very low minimum transfer amounts);
- verifying the eligibility of collateral against counterparty risk falls under the broader management of Credit Risk Mitigation described in paragraph 5.5.

With regard to liquidity risk, assessments are carried out on any additions to the guarantees required by institutional counterparties should the Montepaschi Group be downgraded as a result of signed ISDA, CSA and GMRA agreements.

The process for derivative transactions with ordinary clients is based on the distinction of roles and responsibilities among the different entities within the Group. Trading in derivatives with customers provides for centralization of product factors and market risk monitoring within MPS Capital Services, with allocation, management and monitoring of counterparty credit risk for customers in the bank's networks.

To this end, Retail Banks:

- authorise the credit facilities granted to customers;
- manage each transaction in their books;
- take care of the related documents and regulatory requirements;
- review the amounts drawn with respect to the credit facilities granted.

With regard to products offered to customers, from a general point of view, a series of common elements are typical of most operations. Specifically, the products traded are:

- not of a speculative nature;
- are for the exclusive purpose of covering risk;
- are associated with an underlying position, even if they are contractually and administratively separate from it;
- show limited elements of complexity;
- on the overall position covered, they hold no financial leverage.

In order to reduce counterparty risk and in accordance with the EMIR regulations in force, the Montepaschi Group indirectly joined the swap clearing service managed by the central counterparty, LCH.Clearnet London, for activities with OTC derivatives on interest rates - MPS Capital Services starting from 2010 and Banca MPS from 2016. Moreover, starting in 2016 MPS Capital Services indirectly joined the credit derivative clearing service managed by the central counterparty ICE Clear Europe. Starting from 2019, MPS Capital Services has directly joined the swap clearing service managed by the central counterparty, EUREX CLEARING AG for activities with OTC derivatives on interest rates. With regard to SFT transactions, the Group has joined the service managed by Cassa compensazione e garanzia.

The centralisation of a part of trading in OTC derivatives to the clearing companies makes it possible to considerably reduce the risk of default since the clearing companies are the guarantors and direct administrators of flows from contracts. Any default of a direct member of the service is covered by the guarantee funds and backup systems.

An analysis of the *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, revealed difficulties at integrating a systematic treatment of this risk, similar to the risk factors already identified and measured, due to the characteristics of the operations carried out by the MPS Group subject to this type of risk. Therefore, a heuristic approach integrated into the organizational process has been set up, which consists of an initial indication by the Business Function that verifies the existence of a correlation between the extent of exposure to a counterparty and the worsening of the creditworthiness of that same counterparty, due to counterparty-specific factors (e.g. due to legal or economic links between the counterparty and the company issuing the collateral securities) or generic market risk factors (e.g. links by country/industry/product). This indication is followed by a check by the Risk Management Function, which verifies and, if necessary, confirms the indicated correlation and keeps track of the transactions carried out that are exposed to this risk.

Quantitative information

The following table shows the value of exposures in derivatives, long-term settlement transactions and Security Financing Transactions (SFTs), broken down by method of assessment for regulatory purposes and counterparty portfolio. Specifically, the methods applied are as follows:

- *Market value method*: derivatives and long-term settlement transactions;
- *Comprehensive method with supervisory volatility adjustments:* SFTs.

Tab. 6.1.1 – Counterparty Risk: summary

	Dec-2020		Dec-2019	
	EAD post CRM	Capital Requirements	EAD post CRM	Capital Requirements
Market Value Method				
Derivatives and op. with reg. LT				
of which: Standardized Method	1,499,539	39,888	1,260,004	37,169
of which: IRB Method	580,997	1,227	426,584	446
Total M. Market Value	**2,080,537**	**41,115**	**1,686,589**	**37,614**
Integral Method				
Sft operations				
of which: Standardized Method	2,156,586	47,520	2,041,538	47,970
of which: IRB Method	896,376	20,798	332,773	18,928
Total Integral Method	**3,052,962**	**68,319**	**2,374,311**	**66,898**
Total	**5,133,499**	**109,433**	**4,060,900**	**104,512**

In the Market Value method (transactions in derivatives and Long term repos) the Exposure is a value determined according to rules of prudential supervision and is based on the positive *Fair value* net of nettings; this value is increased by the future credit exposure (*add-on*) and reduced by the effects of the guarantee agreements. The future credit exposure takes account of the probability that in future the current value of the contract, if positive, may increase or, if negative, may become a credit position. This probability is linked with the volatility of the underlying market factors and the residual maturity of the contract. In other terms, it is calculated on the basis of the notional amount of all the derivatives taken into consideration, both with a positive and negative *Fair value*. The capital requirement for counterparty risk, shown in the above table, relates to the regulatory trading portfolio and banking book and is reported for the individual regulatory portfolio of reference and also summarised in the table on capital adequacy for credit risk under the standard approach and AIRB approach (*see* tab 4.2; tab 5.1.1).

The following table provide a comprehensive view of the methods used to calculate CCR regulatory requirements and the main parameters used within each method.

Temp. 6.2.1 – (EU CCR1) – Analysis of CCR exposure by approach

		Notional	Replacement cost/current market value	Potential futurecredit exposure	EEPE	Multiplier	EAD post CRM	RWAs
1	Market value method							
9	Financial collateral comprehensive method (for SFTs)	x	x	x	x	x	3,052,962	609,337
11	**Total as at 31/12/2020**	**x**	**1,955,148**	**1,469,935**	**x**	**x**	**5,133,499**	**1,367,919**

The following table provide CVA *(Credit Value Adjustment)* regulatory calculations (with a breakdown by standardised and advanced approaches).

Tab. 6.2.2 (EU CCR2) – CVA capital charge

		Dec-20	
		Valore dell'esposizione	RWA
1	**Total portfolios subject to the advanced method**	-	-
2	(i) VaR component (including the 3× multiplier)		-
3	(ii) SVaR component (including the 3× multiplier)		-
4	**All portfolios subject to the standardised method**	**620,113**	**440,432**
EU4	Based on the original exposure method	-	-
5	**Total subject to the CVA capital charge**	**620,113**	**440,432**

The following table provide a breakdown of CCR exposures by portfolio (type of counterparties) and by risk weight (riskiness attributed according to the standardized approach).

Temp. 6.2.3 (EU CCR3) – Standardised approach – CCR exposures by regulatory portfolio and risk

	Exposures classes	Classes of credit worthiness (Weighting Factors)														Total	Without rating
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%		
1	Central governments or central banks	846	-	-	-	-	-	-	-	-	1,452	-	-	-	-	2,299	-
2	Regional governments or local authorities	-	-	-	-	11,856	-	-	-	-	-	-	-	-	-	11,856	-
3	Public sector entities	-	-	-	-	2	-	-	-	-	5,643	-	-	-	-	5,645	-
4	Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Institutions	0	1,164,231	342,342	-	641,642	-	1,135,828	-	-	20,346	-	-	-	-	3,304,388	-
7	Corporates	-	-	-	-	-	-	1,947	-	-	236,590	-	-	-	-	238,536	-
8	Retail	-	-	-	-	-	-	-	-	155	-	-	-	-	-	155	-
	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exposures in default	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Higher-risk categories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Collective investment undertakings	-	-	-	-	-	-	-	-	-	93,246	-	-	-	-	93,246	-
	Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	**Total as at 31/12/2020**	**846**	**1,164,231**	**342,342**	**-**	**653,501**	**-**	**1,137,774**	**-**	**155**	**357,276**	**-**	**-**	**-**	**-**	**3,656,125**	**-**
	Total as at 31/12/2019	**833**	**737,150**	**314,177**	**-**	**799,503**	**-**	**1,143,392**	**-**	**73**	**306,410**	**5**	**-**	**-**	**-**	**3,301,542**	**-**

Template EU CCR4 (EBA/GL/2016/11) provides information on CCR exposures subject to AIRB approach broken down by portfolio and PD scale.

Tab. 6.2.4.1 EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale: Total

	a	b	c	d	e	f	g
Rating Class	Exposure value	Exposure weighted average PD (%)	"Number of obligors"	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWAs	Density of risk weighted exposure amount
Class 01	-	-	-	-	-	-	-
Class 02	1,015	0.03%	9	48.00%	4.70	270	26.64%
Class 03	1,291	0.05%	27	47.36%	1.83	162	12.57%
Class 04	4,199	0.09%	51	45.92%	2.93	1,220	29.04%
Class 05	5,753	0.13%	74	46.24%	2.05	1,589	27.63%
Class 06	11,576	0.20%	132	46.57%	2.63	5,336	46.10%
Class 07	22,905	0.30%	216	47.10%	3.26	14,104	61.57%
Class 08	1,058,639	0.46%	215	3.11%	1.55	40,578	3.83%
Class 09	23,961	0.69%	241	47.22%	2.39	18,146	75.73%
Class 10	40,382	1.05%	300	46.80%	3.17	39,704	98.32%
Class 11	37,386	1.59%	278	47.19%	3.69	42,860	114.64%
Class 12	121,269	2.42%	213	5.38%	0.49	14,415	11.89%
Class 13	34,475	3.99%	143	19.81%	1.47	17,402	50.48%
Class 14	3,819	6.31%	77	47.23%	2.20	4,531	118.63%
Class 15	2,259	9.95%	35	45.09%	1.59	3,597	159.25%
Class 16	2,065	16.03%	16	46.00%	4.89	2,988	144.69%
Class 17	231	22.12%	10	45.38%	4.57	379	164.07%
Class 18	115	31.63%	4	45.36%	1.01	115	99.88%
Class 19	334	45.00%	3	44.80%	1.00	769	230.20%
Class 20	28,901	100.00%	91	54.70%	1.55	599	2.07%
Total as at 31/12/2020	**1,400,577**	**0.84%**	**2,135**	**8.75%**	**1.63**	**208,765**	**-**

The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.

Tab. 6.2.4.2 EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale: Exposures to or secured by corporates - SMEs

	a	b	c	d	e	f	g
Rating Class	Exposure value	Exposure weighted average PD (%)	"Number of obligors"	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWAs	Density of risk weighted exposure amount
Class 01	-	-	-	-	-	-	-
Class 02	59	0.03%	3	46.60%	2.93	7	11.71%
Class 03	1,094	0.05%	16	47.53%	1.90	140	12.75%
Class 04	1,479	0.09%	23	46.99%	1.81	246	16.64%
Class 05	3,825	0.13%	39	45.56%	1.58	812	21.23%
Class 06	2,129	0.20%	59	46.35%	2.38	639	30.00%
Class 07	5,884	0.30%	92	46.68%	3.34	2,736	46.50%
Class 08	4,220	0.46%	80	46.51%	3.58	2,458	58.23%
Class 09	5,772	0.69%	92	46.66%	3.55	3,826	66.28%
Class 10	11,380	1.05%	121	46.69%	3.41	8,752	76.91%
Class 11	13,926	1.59%	117	47.24%	4.24	13,493	96.89%
Class 12	7,269	2.42%	78	46.97%	4.26	7,067	97.22%
Class 13	9,357	3.99%	53	47.45%	4.45	11,148	119.13%
Class 14	1,106	6.31%	23	46.25%	2.77	1,220	110.32%
Class 15	584	9.95%	19	45.84%	3.07	756	129.36%
Class 16	1,432	16.03%	8	45.08%	4.89	2,490	173.89%
Class 17	204	22.12%	5	45.44%	4.57	357	174.76%
Class 18	5	31.63%	1	44.74%	1.01	11	203.87%
Class 19	-	45.00%	-	0.00%	-	-	0.00%
Class 20	2,443	100.00%	20	51.52%	1.20	176	7.19%
Total as at 31/12/2020	**72,169**	**1.98%**	**849**	**46.81%**	**3.57**	**56,331**	**-**

The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.

Tab. 6.2.4.3 EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale: Exposures to or secured by corporates - Other companies

	a	b	c	d	e	f	g
Rating Class	Exposure value	Exposure weighted average PD (%)	"Number of obligors"	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWAs	Density of risk weighted exposure amount
Class 01	-	-	-	-	-	-	-
Class 02	924	0.03%	2	48.13%	4.81	262	28.38%
Class 03	140	0.05%	4	45.97%	1.29	20	13.95%
Class 04	2,531	0.09%	11	45.31%	3.59	957	37.83%
Class 05	1,676	0.13%	14	47.75%	3.14	749	44.68%
Class 06	9,204	0.20%	31	46.63%	2.69	4,661	50.64%
Class 07	16,132	0.30%	54	47.27%	3.23	11,190	69.37%
Class 08	1,053,558	0.46%	54	2.90%	1.54	37,899	3.60%
Class 09	16,784	0.69%	63	47.57%	1.99	13,880	82.70%
Class 10	26,904	1.05%	62	46.89%	3.07	30,139	112.03%
Class 11	21,443	1.59%	50	47.78%	3.34	28,532	133.06%
Class 12	112,812	2.42%	26	2.28%	0.24	6,747	5.98%
Class 13	23,849	3.99%	21	7.90%	0.31	5,606	23.51%
Class 14	1,495	6.31%	8	47.84%	1.78	2,594	173.58%
Class 15	1,469	9.95%	1	44.74%	1.00	2,715	184.83%
Class 16	-	16.03%	-	0.00%	-	-	0.00%
Class 17	-	22.12%	-	0.00%	-	-	0.00%
Class 18	-	31.63%	-	0.00%	-	-	0.00%
Class 19	327	45.00%	1	44.74%	1.00	761	233.01%
Class 20	7,474	100.00%	20	51.79%	1.66	331	4.43%
Total as at 31/12/2020	**1,296,720**	**0.75%**	**422**	**6.34%**	**1.51**	**147,044**	**-**

The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.

Tab. 6.2.4.4 EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale: Other retail exposures - SMEs

	a	b	c	d	e	f	g
Rating Class	Exposure value	Exposure weighted average PD (%)	"Number of obligors"	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWAs	Density of risk weighted exposure amount
Class 01	-	-	-	-	-	-	-
Class 02	31	0.03%	4	46.85%	-	1	3.74%
Class 03	57	0.05%	7	47.40%	-	3	5.64%
Class 04	189	0.09%	17	45.84%	-	16	8.50%
Class 05	252	0.13%	21	46.49%	-	28	11.26%
Class 06	243	0.20%	42	46.16%	-	37	15.10%
Class 07	890	0.30%	70	46.70%	-	177	19.95%
Class 08	860	0.46%	81	46.47%	-	221	25.74%
Class 09	1,405	0.69%	86	45.41%	-	440	31.35%
Class 10	2,099	1.05%	117	46.21%	-	813	38.75%
Class 11	1,572	1.59%	110	44.83%	-	688	43.74%
Class 12	1,188	2.42%	109	46.10%	-	601	50.55%
Class 13	884	3.99%	68	45.92%	-	496	56.09%
Class 14	1,218	6.31%	46	47.37%	-	716	58.78%
Class 15	206	9.95%	15	45.48%	-	127	61.56%
Class 16	634	16.03%	8	48.07%	-	499	78.70%
Class 17	27	22.12%	5	44.94%	-	23	84.17%
Class 18	110	31.63%	3	45.39%	-	104	94.79%
Class 19	8	45.00%	2	47.34%	-	8	109.63%
Class 20	18,984	100.00%	51	56.25%	-	92	0.48%
Total as at 31/12/2020	**30,857**	**3.13%**	**862**	**46.16%**	**-**	**5,091**	**-**

The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.

Tab. 6.2.4.5 EU CCR4 – IRB approach – CCR exposures by exposure class and PD scale: Other retail exposures - Individuals

	a	b	c	d	e	f	g
Rating Class	Exposure value	Exposure weighted average PD (%)	"Number of obligors"	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWAs	Density of risk weighted exposure amount
Class 01	-	-	-	-	-	-	-
Class 02	-	0.03%	-	0.00%	-	-	0.00%
Class 03	-	0.05%	-	0.00%	-	-	0.00%
Class 04	-	0.09%	-	0.00%	-	-	0.00%
Class 05	-	0.13%	-	0.00%	-	-	0.00%
Class 06	-	0.20%	-	0.00%	-	-	0.00%
Class 07	-	0.30%	-	0.00%	-	-	0.00%
Class 08	-	0.46%	-	0.00%	-	-	0.00%
Class 09	-	0.69%	-	0.00%	-	-	0.00%
Class 10	-	1.05%	-	0.00%	-	-	0.00%
Class 11	445	1.59%	1	25.77%	-	147	33.01%
Class 12	-	2.42%	-	0.00%	-	-	0.00%
Class 13	385	3.99%	1	25.77%	-	152	39.46%
Class 14	-	6.31%	-	0.00%	-	-	0.00%
Class 15	-	9.95%	-	0.00%	-	-	0.00%
Class 16	-	16.03%	-	0.00%	-	-	0.00%
Class 17	-	22.12%	-	0.00%	-	-	0.00%
Class 18	-	31.63%	-	0.00%	-	-	0.00%
Class 19	-	45.00%	-	0.00%	-	-	0.00%
Class 20	-	100.00%	-	0.00%	-	-	0.00%
Total as at 31/12/2020	**830**	**2.70%**	**2**	**25.77%**	**-**	**299**	**-**

The weighted average PD (%) and weighted average LDG (%) under Total does not include class 20.

Table 6.2.5 shows the gross positive *Fair value* of the contracts, the advantages resulting from the netting agreements, the netted *Fair value* and the net credit exposure of the Banking Group to counterparty risk for derivative instruments. All the financial and credit derivatives traded over the counter (OTC) with any counterparty institutional, corporate, retail counterparties etc.) are included in the table irrespective of the regulatory (trading and banking) portfolio they belong to. In particular, the "gross positive *Fair value*" corresponds to the book value of the above-mentioned contracts and therefore is inclusive of the netting agreements. The "Nettings" represent the gross positive *Fair value* amount, which as a result of the agreements executed with the counterparties, is offset with negative *Fair value* transactions. The net "netted *Fair value*" indicates the positive *Fair value* amount remaining after the nettings.

Tab. 6.2.5 – (EU CCR5-A) – Impact of netting and collateral held on exposure values

		a Gross positive fair value or net carrying amount	b Netting benefits	c Netted current credit exposure	d Collateral held	e Net credit exposure
1	Derivatives	6,422,328	-3,668,180	2,754,148	2,620,333	133,815
4	**Total as at 31/12/2020**	**6,422,328**	**-3,668,180**	**2,754,148**	**2,620,333**	**133,815**
	Total as at 31/12/2019	**5,481,300**	**-2,683,268**	**2,798,032**	**2,675,493**	**122,539**

Table 6.2.6 shows the breakdown of the gross positive *Fair value* of OTC derivatives by type of underlying.

Tab. 6.2.6 – Derivatives: breakdown of positive fair value by type of underlying

	Interest rates	Foreign currencies and gold	Equity securities	Credits	Other	Total
Derivatives as at 31/12/2020	**6,426,888**	**57,282**	**157,214**	**-**	**31,822**	**6,673,207**
Derivatives as at 31/12/2019	**5,533,540**	**34,322**	**110,874**	**8,171**	**26,973**	**5,713,880**

The following table provide a breakdown of all types of collateral (cash, sovereign debt, corporate bonds, etc.) used by banks to support or reduce CCR exposures related to derivative transactions or to SFTs.

Tab. 6.2.7 - (EU CCR5-B) – Composition of collateral for exposures to CCR

	Dec-20		Dec-19	
	Real collateral on SFT	Real collaterals on derivatives	Real collateral on SFT	Real collateral on derivatives
Standardised Approach				
Integral Method	1,344,180	27,895,751	1,716,071	23,949,931
Simplified method	-	-	-	-
Standard total	**1,344,180**	**27,895,751**	**1,716,071**	**23,949,931**
AIRB Approach	-	-	-	-
Substitution principle	-	-	-	-
AIRB total	**-**	**-**	**-**	**-**
Total	**1,344,180**	**27,895,751**	**1,716,071**	**23,949,931**

It should be noted that as at the date of this document, the Group did not have any transactions in credit derivatives hedging loan book exposures.

Tab. 6.2.8 – (EU CCR6) – Credit derivatives exposures

	Credit derivative hedges		Other Credit derivatives
Notionals	Credit default products	Protection sold	
Credit default products	-	-	3,974,636
Total rate of return swaps	-	-	
Total notionals	**-**	**-**	**3,974,636**
Fair value			
Positive Fair value	**-**	**-**	**3,258**
Negative Fair value	**-**	**-**	**131,856**

The table 6.2.8 shows the notional values of credit derivative contracts, by the role played by the Montepaschi Group (buyer/seller of protection).

For more details on derivatives, see Part E -1.3.1.B Derivative instruments of the Consolidated Financial Statements 31.12.2020.

The following table provide a comprehensive picture of the institution's exposures to CCPs.I In particular, the template includes all types of exposures (due to operations, margins, and contributions to default funds) and related capital requirements.

Tab. 6.2.9 – (EU CCR8) – Exposures to CCPs

		Dec-20	
		EAD post CRM	RWA
1	**Exposures to QCCPs (total)**	×	**36,978**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	1,506,573	36,978
3	(i) OTC derivatives	-	-
4	(ii) Exchange-traded derivatives	-	-
5	(iii) SFTs	627,322	12,546
6	(iv) Netting sets where cross-product netting has been approved	879,250	24,432
7	Segregated initial margin	581,447	×
8	Non-segregated initial margin	-	-
9	Prefunded default fund contributions	632,989	17,448
10	Alternative calculation of own funds requirements for exposures	×	
11	**Exposures to non-QCCPs (total)**		
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	×	
13	(i) OTC derivatives		
14	(ii) Exchange-traded derivatives		
15	(iii) SFTs		
16	(iv) Netting sets where cross-product netting has been approved		
17	Segregated initial margin		
18	Non-segregated initial margin		×
19	Prefunded default fund contributions		
20	Unfunded default fund contributions		

7. Market Risk

7.1 Trading Book Market Risk: general disclosure

The Group's Regulatory Trading Portfolio (RTP), or Trading Book, is made up of all the Regulatory Trading Books managed by the Parent Bank (BMPS) and MPS Capital Services (MPSCS). The Trading Portfolios of the other subsidiaries are immune to market risk. Trading in derivatives, which are brokered on behalf of customers, calls for risk to be centralised at, and managed by, MPSC.

The market risks in the trading book of both the Parent Company and the other Group entities (which are relevant as independent *market risk taking centres*), are monitored in terms of *Value-at-Risk* (VaR) for operational purposes. The Group's Finance and Liquidity Committee is responsible for directing and coordinating the overall process of managing the Group's proprietary finance thereby ensuring that the management strategies of the various business units are consistent.

The Group's Trading Book is subject to daily monitoring and reporting by Financial Risk Officer Area of the Parent Company on the basis of proprietary systems. VaR for management purposes is calculated separately from the operating units, using the internal risk measurement model implemented by the Risk Management function in keeping with international *best practices*. However, the Group uses the standardised methodology in the area of market risks solely for reporting purposes. Operating limits for trading activities, defined and approved by the Parent Company in accordance with the *Risk Appetite Framework*, are expressed by level of delegated authority in terms of VaR, which is diversified by risk factors and portfolios, monthly and annual *stop losses* and Stress. Furthermore, the *trading book*'s credit risk, in addition to being included in VaR computations and in the respective limits for the *credit spread* risk component, is also subject to specific operating limits for issuer and bond concentration risk which specify maximum notional amounts by type of *guarantor* and rating class.

VaR is calculated with a 99% confidence interval and a *holding period* of 1 business day. The Group adopts the method of historical simulation with daily *full revaluation* of all basic positions, out of 500 historical entries of risk factors (*lookback period*) with daily scrolling. The VaR calculated in this manner takes account of all diversification effects of risk factors, portfolios and types of instruments traded. It is not necessary to assume, a priori, any functional form in the distribution of asset returns, and the correlations of different financial instruments are implicitly captured by the VaR model on the basis of the combined time trend of risk factors.

The trend-based scenarios used in the model are constructed as the daily change, in terms of the ratio, of the individual risk factors; the shock is applied to the current market level, making the VaR measure reactive to changes in market conditions.

The management reporting flow on market risks is periodically transmitted to the Management Risk Committee, the Group's Top Management and the Board of Directors of the Parent Company in a Risk Management Report, which keeps Executive Management and governing bodies up to date on the overall risk profile of the Group.

The macro-categories of risk factors covered by the Internal Market Risk Model are IR, EQ, CO, FX and CS as described below:

- IR: interest rates on all relevant curves, inflation curves and related volatilities;
- EQ: share prices, indexes and relative volatilities;
- CO: commodity prices and indexes;
- FX: exchange rates and related volatilities;
- CS: credit spread levels.

VaR (or diversified or net VaR) is calculated and broken down daily for internal management purposes, even with respect to other dimensions of analysis:

- organisational/management analysis of portfolios,
- analysis by financial instrument,
- analysis by risk family.

It is then possible to assess VaR along each combination of these dimensions in order to facilitate highly detailed analyses of events characterising the portfolios.

In particular, with reference to *risk factors* the following are identified: Interest Rate VaR (IR VaR), Equity VaR (EQ VaR), Commodity VaR (CO VaR), Forex VaR (FX VaR) and Credit Spread VaR (CS VaR). The algebraic sum of these items gives the so-called Gross VaR (or non-diversified VaR), which, when compared with diversified VaR, makes it possible to quantify the benefit of diversifying risk factors resulting from holding portfolios on *asset class* and *risk factor* allocations which are not perfectly correlated. This information can also be analysed along all the dimensions referenced above.

The model enables the production of diversified VaR metrics for the entire Group in order to get an integrated overview of all the effects of diversification that can be generated among the banks of the Group on account of the specific joint positioning of the various *business units*.

Moreover, scenario and stress-test analyses are regularly conducted on various risk factors with different degrees of granularity across the entire tree structure of the Group's portfolios and for all categories of instruments analysed.

Stress tests are used to assess the bank's capacity to absorb large potential losses in extreme market situations, so as to identify the measures necessary to reduce the risk profile and preserve assets.

Stress tests are developed on the basis of discretionary and trend-based scenarios. Trend-based scenarios are defined on the basis of previously-registered real situations of market disruption. Such scenarios are identified based on a time frame in which risk factors were subjected to stress. No particular assumptions are required with regard to the correlation among risk factors since trend-based data for the stress period identified has been measured.

Stress tests based upon discretionary scenarios assume extreme changes occurring to specific market parameters (interest rates, exchange rates, stock indices, credit spreads and volatility) and measure the corresponding impact on the value of portfolios, regardless of their actual occurrence in the past. Simple discretionary scenarios are currently being developed (variation of a single risk factor) as are multiple ones (variation of several risk factors simultaneously). Simple discretionary scenarios are calibrated to independently deal with one category of risk factors at a time, assuming shocks do not spread to the other factors. Multiple discretionary scenarios, on the other hand, aim to assess the impact of global shocks that simultaneously affect all types of risk factors.

It should be noted that the VaR methodology described above is, for operational purposes, also applied to the portion of the Banking Book consisting of financial instruments that are similar to trading instruments (e.g. Equity instruments/Bonds held in portfolios, measured at fair value, classified as FVTPL and FVOCI, and in AC portfolios).

The Group has implemented a backtesting procedure *compliant* with current regulations governing Market Risk as part of its own risk management system.

Backtesting refers to a series of tests conducted on VaR model results against day-to-day changes in the trading book value, with a view to assessing the model's forecasting capacity as regards the accuracy of risk metrics generated. If the model is robust, by periodically comparing the estimated daily VaR against daily trading losses from the previous day, the result should be that actual losses greater than the VaR occur with a frequency consistent with that defined by the confidence level.

Based on applicable regulatory provisions, the Financial Risk Officer Area has considered it appropriate to perform the test using actual backtesting methods and integrate these into the Group's management reporting system.

The **Actual backtesting** meets the need for verifying the VaR model's forecasting reliability in reference to actual Bank operations (daily trading P&L) less the effect of any interest accrued between trading days t-1 and t on the securities and less the effect of fees and commissions.

These "clean" P&L results (the "actual P&L") are compared with the previous trading day VaR. If the losses are greater than those forecast by the model an "exception" is recorded.

Each bank of the MPS Group which is relevant as a *market risk-taking centre* contributes to the generation of interest rate risk and price risk in the overall Trading Book.

With reference specifically to the Parent Company, the Finance, Treasury & Capital Management Area (FTCMA) within the CFO division is the Business Area in charge of trading. The Global Markets Division carries out trading activities for MPSCS.

MPSCS and, to a lesser extent, the Finance, Treasury & Capital Management Area (FTCMA hereinafter) manage a proprietary portfolio which takes trading positions on interest rates and credit. In general, interest rate positions are taken by purchasing or selling bonds, and by creating positions in listed derivatives (futures) and OTCs (IRS, swaptions). The FTCMA operates in the short-term portion of the main interest rate curves, mostly through bonds and listed derivatives.

With regard to credit risk in the trading book, the equity positions are generally managed through the purchase or sale of bonds issued by companies or by creating synthetic positions in derivatives. The activity is oriented to achieve a long or short position on individual issuers, or a long or short exposure on specific commodities. The activity is carried out solely on the Bank's own behalf with objectives of absolute return and in compliance with other specific issuer and concentration risk limits.

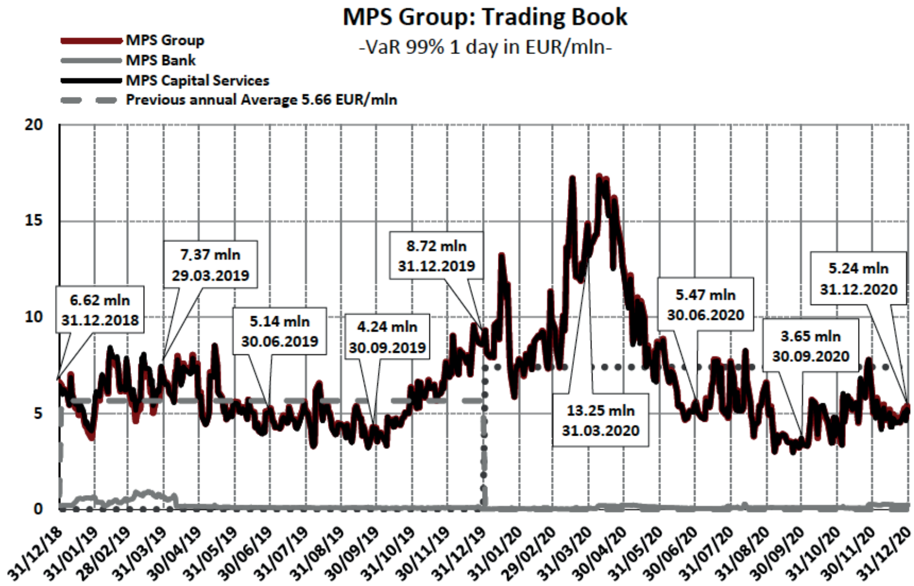
The Business Area in charge of the Parent Company's trading activity with respect to price risk is the FTCMA which manages a proprietary portfolio and takes trading positions on equities, Stock Exchange indexes and commodities. In general, positions on equity securities are taken both through the purchase/sale of equities and through the positions created in listed derivatives (e.g. futures) and OTC (e.g. options). Trading is carried out exclusively on the Bank's own behalf, with objectives of absolute return, in compliance with the delegated limits of monthly and yearly VaR and stop loss.

For further information, please refer to the **Notes to the Consolidated Financial Statements**, *Part E – Information on risks and hedging policies – Section 2.1 – Interest Rate Risk and Price Risk – Regulatory Trading Book.*

During the year 2020, the market risks of the Group's Regulatory Trading Book showed, in terms of VaR, a performance influenced by the subsidiary MPS Capital Services, mainly for own trading activities in the CS-IR segment (transactions in Italian government bonds and long futures) and, to a lesser extent, client-driven activities in the EQ segment (options and equity futures on the main market indices). The Parent Company's portfolio contribution to total VaR was negligible.

The volatility of the VaR during the year was heavily impacted by the crisis in the markets triggered by the outbreak of the COVID-19 pandemic, with particular effect on the VaR model due to the extreme variations recorded in most market parameters during March, predominantly affecting the primary dealer activities on Italian government bonds of the subsidiary MPS Capital Services. In particular, the increase in the Italian Credit Spread in March caused a considerable increase in the VaR measure with the incorporation in the model of tail events represented by extreme and sudden increases on a daily basis in the yields of Italian government bonds, with a relevant effect in the short portion of the curve. In the following months, thanks to the intervention of the ECB with the Pandemic Emergency Purchase Program (PEPP) to combat the risks related to the pandemic, tensions on market parameters eased and exposure to the credit spread risk in Italy was gradually reduced by the subsidiary MPSCS, with VaR falling to pre-crisis levels starting from the end of the first half. The scrolling of the time window of trend-based scenarios underlying the model, with the exit of the 2018 May-June Italy credit spread tail scenarios, triggered by the political crisis concerning the formation of the government, contributed to the stabilisation of the VaR to more contained levels.

In the second half of the year, and in particular from the start of September, despite some temporary increases in exposure during the auctions for primarily dealer activities on already mentioned Italian government securities, the average Italian sovereign bonds held in the Group's trading portfolios declined considerably compared to the first half of the year (from EUR 5.1 bn to EUR 3.5 bn in nominal value terms), reaching the lowest level since the start of the year in December, resulting in a contraction in the CS factor to the overall VaR, settling at the end of 2020 on the average levels of the previous year.

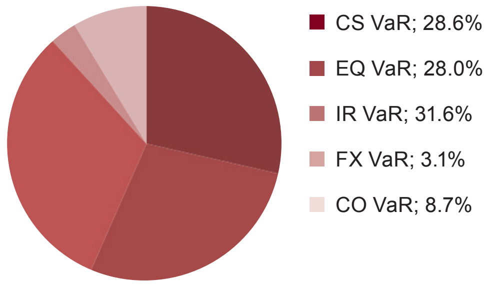

MPS Group: Trading Book
-VaR 99% 1 day in EUR/mln-
MPS Group
MPS Bank
MPS Capital Services
Previous annual Average 5.66 EUR/mln
6.62 mln
31.12.2018
7.37 mln
29.03.2019
5.14 mln
30.06.2019
4.24 mln
30.09.2019
8.72 mln
31.12.2019
13.25 mln
31.03.2020
5.47 mln
30.06.2020
3.65 mln
30.09.2020
5.24 mln
31.12.2020
20
15
10
5
0
31/12/18
31/01/19
28/02/19
31/03/19
30/04/19
31/05/19
30/06/19
31/07/19
31/08/19
30/09/19
31/10/19
30/11/19
31/12/19
31/01/20
29/02/20
31/03/20
30/04/20
31/05/20
30/06/20
31/07/20
31/08/20
30/09/20
31/10/20
30/11/20
31/12/20

VaR breakdown

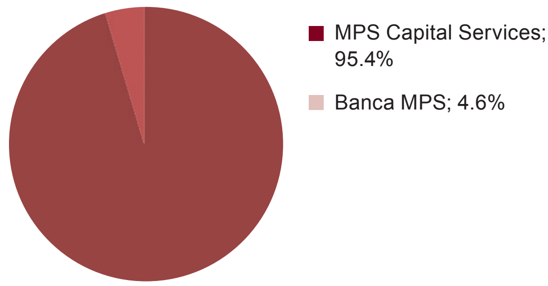
A breakdown of VaR by risk factors shows that 28.6% of the Group's portfolio was allocated to credit-spread risk factors (CS VaR), 31.6% was absorbed by interest rate risk factors (IR VaR), 28.0 % by equity risk factors (EQ VaR),3.1% by foreign exchange risk factors (FX VaR), and the remaining 8.7% by commodity risk factors (CO VaR).

With regard to the legal entities, MPS Capital Services accounted for 95.4 % and the Parent Company for 4.6 % of overall risk as at 31 December 2020.

MPS Group: Trading Book
VaR by Risk Factor: 31/12/2020



MPS Group: Trading Book
VaR by Bank: 31/12/2020



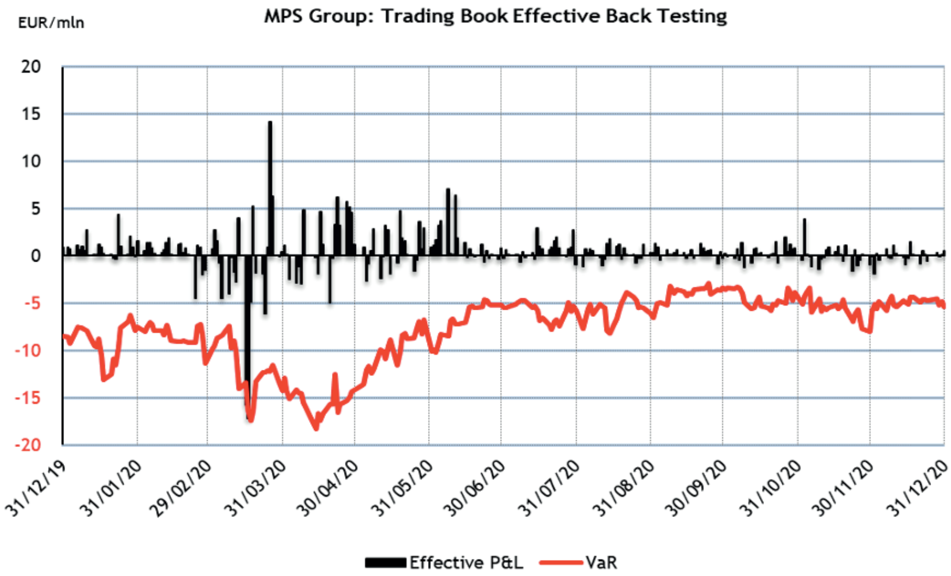
Group VaR

In 2020, the Group's VaR in the RegulatoryTrading Book ranged between a low of EUR 3.02 mln recorded on 23 September 2020 and a high of EUR 17.32 mln on 23 December 2020 with an average value registered of EUR 7.41 mln.

The Regulatory Trading Book VaR as at 31 December 2020 amounted to EUR 5.24 mln. The following chart shows the data Effective Backtesting of the internal model for Market Risk, related to the Supervisory Trading Portfolio of the group.

MPS Group
VaR PNV 99% 1 day in EUR/mln

	VaR	Data
End of Period	5.24	31/12/2020
Min	3.02	23/09/2020
Max	17.32	09/04/2020
Average	7.41	



Since the start of the year, 2 marginal exceptions were recorded, in the first quarter of 2020, referring entirely to the risk exposure of the subsidiary MPSCS. These exceptions were recorded on 16 and 17 March, as a result of the extreme increase in volatility on the markets following the health emergency linked to the spread of the COVID-19 pandemic. The days past due recorded simultaneous tension scenarios on all the main risk factors, with particular pressure in terms of P&L on the positions in Italian government securities (temporary widening of the Italian short-term credit spread, which for the most part had reversed by the end of the first quarter due to effect of the ECB's new Quantitative Easing programme to cope with the economic emergency triggered by the pandemic) and on corporate and financial securities.

Tab. 7 – (EU MR1) – Market Risk under the standardised approach

		Dec-20	
		RWAs	Capital requirements
1	Interest rate risk (generic and specific)	1,306,833	104,547
2	Equity risk (generic and specific)	473,223	37,858
3	Exchange risk	165,786	13,263
4	Commodity risk	137,076	10,966
	Options		
5	Simplified Method	-	-
6	Delta-Plus Method	90,769	7,262
7	Scenario Method	-	-
8	**Securitisation (specific risk)**	**313,733**	**25,099**
9	**Total**	**2,487,420**	**198,994**

8. Exposure to interest rate risk on positions not included in the trading book

The Group adopts an interest rate risk governance and management system known as the *IRRBB Framework* which avails itself of:

- a quantitative model, which provides the basis for monthly calculation of the exposure of the Group and the individual companies to interest rate risk in terms of risk indicators;
- risk monitoring processes, aimed at periodically verifying compliance with the operational limits assigned to the Group overall and to the individual *legal entities*;
- risk control and management processes, geared toward bringing about adequate initiatives for optimising the risk profile and activating any necessary corrective actions.

Within the above system, definition of policies for managing the Group's Banking Book and controlling its interest rate risk. are centralised in the Parent Company: The Banking Book consists of all exposures not included in the Trading Book and, in accordance with international *best practices*, identifies the set of the Group's commercial trades connected to the transformation of maturities in the assets and liabilities and ALM financial activities (treasury and risk hedging derivatives).

The strategic Banking Book rate risk choices are defined periodically in the *IRRBB Strategy* document approved by the Board of Directors and made operational within the Group's Finance and Liquidity Committee; these choices are based on interest rate risk measures expressed in terms of changes in economic value as well as interest margin.

With reference to the *sensitivity* test on economic value, the Montepaschi Group applies a predefined set of interest rate scenarios in line with the Second Pillar of Basel regulations, which envisage non-parallel movements of the curve aside from parallel shifts of 25, 100 and 200 bps. As interest margin analyses focus on the short term, they consider exclusively the application of parallel scenarios.

In the Group's IRRBB framework, the economic value sensitivity measures are processed by clearing the origination of the *cash flows* of the components not directly relating to interest rate risk. Non-performing loans entries are considered net of their credit impairment.

Risk metrics are calculated by using a model for the valuation of demand items (*Non-Maturity Deposits*, NMDs) whose characteristics of stability and partial insensitivity to interest rate changes are described in the systems with a statistical approach based on the time series of customer behaviours.

The Group's IRRBB framework incorporates within the rate risk measurements a simplified behavioural model which takes into account the aspect of residential mortgage prepayment (so-called prepayment risk).

In 2020, the Group continued to carefully and constantly monitor the various characteristics of the overall risk profile, also due to the presence of contractual options, which make the risk profile more dependent on market trends and, in particular, on interest rates and related fluctuations.

The Group is committed to the continual updating of risk measurement methodologies by gradually fine-tuning the estimation models so as to include all major factors that progressively modify the interest rate risk profile of the banking book.

In 2020 project activities regarding the development of a behavioral model for early repayment of deposits (so-called redemption risk) were completed.

Tab. 8 – Exposure to interest rate risk in the Banking Book

Shift (+/-)	Effect on Economic Value (values in €/mln)		Effect on Net Interest Income (values in €/mln)	
	Dec-20	Dec-19	Dec-20	Dec-19
Eur +100bp	118.94	166.01	140.66	155.02
Usd +100bp	-1.91	-1.22	1.21	-1.34
Altro +100bp	-0.42	-0.08	0.62	1.67
Total +100bp	**116.61**	**164.71**	**142.49**	**155.34**
Eur -100bp	-132.12	-161.57	-219.77	-100.50
Usd -100bp	-0.25	1.33	-3.01	-0.31
Altro -100bp	-0.14	-0.06	-0.30	-0.44
Total -100bp	**-132.51**	**-160.29**	**-223.08**	**-101.24**

The amount of economic value at risk is, in any case, below the level considered as a critical threshold by current regulations.

Please note that the interest margin *sensitivity* measurement, calculated over a twelve-month time horizon, expresses only the effect of changes in rates on the items subject to analysis. Assumptions regarding future trends in assets and liabilities are thus excluded and, therefore, cannot be considered as a predictor of level of net interest. The *sensitivity* of the Montepaschi Group, at the end of 2020, suggests a profile of exposure to rate reduction risk. In the hypothesis of a shift of -100 bp in the interest rate curve, total sensitivity of the economic value stands at - 132.51 Eur/mil (vs. -160.29 Eur/mln in 2019).

Risk is almost entirely allocated to exposures denominated in Euros.

For further information, please refer to the **Notes to the Consolidated Financial Statements**, *Part E – Information on risks and hedging policies – Section 1.2.2 – Interest Rate Risk and Price Risk – Banking Book.*

9. Exposures in equities not included in the trading book

Exposures in equity instruments are held by the Group for strategic purposes (group investments, associates and *joint ventures*), institutional purposes (investments in trade associations, local entities and institutions), purposes functional to the bank's business and the development of commercial business and financial investment purposes (limited to the investments associated with the *merchant banking* business of MPS Capital Services). Other investments exist, which are no longer considered as strategic and that are being sold, as well as investments in companies in liquidation. Equity exposures included in the Banking book are classified for balance sheet purposes under Financial assets measured at fair value through profit and loss (FVTPL), Financial assets measured at *Fair value* through other comprehensive income (FVTOCI) and equity investments.

Measurements and accounting criteria

Financial assets measured at fair value through profit and loss (FVTPL)

Classification criteria

These assets include financial assets other than those classified under "Financial assets measured at *fair value* through other comprehensive income" and "Financial assets measured at amortised cost". In particular, the category "financial assets measured at fair value as per mandatory requirements" also comprises equity instruments that cannot be classified as representing control, affiliation, or joint control, held for trading purposes or for which, upon initial recognition, the *fair value* through other comprehensive income option was not chosen and units of UCITS.

Recognition criteria

Initial recognition of debt securities and equity securities occurs at the settlement date. Upon initial recognition, financial assets measured at fair value through profit and loss are recognized at fair value, which usually corresponds to the amount paid, without considering transaction costs or revenues directly attributable to the instrument, which are directly recognised in the income statement.

Measurement criteria

After initial recognition, financial assets measured at *fair value* through profit and loss are recorded at *fair value,* with changes recognised as an offsetting entry in the income statement.

Market prices are used to determine the *fair value* of financial instruments listed in active markets. In the absence of an active market, commonly adopted estimation methods and measurement models are used, which take into account all the risk factors associated with the instruments and which are based on market data, such as: value of listed instruments that have similar characteristics, calculations of discounted cash flows, models for determining the option prices, values recorded in recent comparable transactions, etc. For equity securities the cost criterion is used as an estimate of the fair value only on a residual basis and limited to rare circumstances, i.e., if none of the above measurement models can be applied, or if there is a wide range of possible fair value measurements, in which case the cost represents the most meaningful estimate.

Derecognition criteria

Financial assets are derecognised from financial statements: i) upon expiration of the contractual rights on the cash flows resulting from the assets or ii) when the financial assets are sold and all related risks/ benefits are transferred**.**

Revenue recognition criteria

Gains and losses from the change in financial assets measured at *fair value* and those measured at fair value as per mandatory requirements, including the results of the fair value measurements of these assets and liabilities, are booked to the income statement under item "110 - Net profit/loss from financial assets and liabilities measured at *fair value* through profit and loss", in the sub-items "b) other financial assets measured at fair value as per mandatory requirements".

Financial assets measured at fair value through other comprehensive income (FVTOCI)

Classification criteria

This category includes financial assets represented by equity instruments, held under a non-trading *business model,* for which, on first-time recognition, the option for the recognition in the statement of comprehensive income of changes in fair value after first-time recognition in the financial statements (OCI *election*) has been irrevocably exercised. In particular this item includes equity stakes, which cannot be classified as representing control, an affiliation, or joint control and are not held for trading purposes, for which the fair value through other comprehensive income option was chosen.

Recognition criteria

Financial assets are initially recognised on the date of settlement. On initial recognition, the assets are measured at their *fair value*, which normally corresponds to the price paid, inclusive of transaction costs or income directly attributable to the instrument.

Measurement criteria

Financial assets represented by equity instruments, following initial recognition, continue to be measured at fair value, with changes booked to the appropriate equity reserve net of the associated tax effect (item "120 - Valuation reserves"). The amount recognised as an offsetting entry in shareholders' equity (Statement of Comprehensive Income) cannot subsequently be transferred to the income statement, even following a sale; in this case, the amount is reclassified in another equity item (item "150 - Reserves"). Furthermore, no write-down to the income statement is envisaged for these assets as they are not subject to any *impairment* process. The only component of these equity securities that is recognised in the income statement is represented by the related dividends.

For equity securities included in this category, which are not listed on an active market, the cost criterion is used as an estimate of the *fair value* only on a residual basis and limited to rare circumstances, i.e., if none of the measurement models previously mentioned can be applied, or if there is a wide range of possible fair value measurements, in which case the cost represents the most meaningful estimate.

For more information on the criteria for determining fair value, please refer to Section "A.4Information on *Fair Value*" of Part A of the Notes to the consolidated financial statements.

Revenue recognition criteria

As regards financial instruments represented by equity instruments, for which the so-called "OCI *election*" was exercised, only dividends are booked to the income statement (item "70. Dividends and similar income"). Changes in fair value subsequent to initial recognition are recorded in a specific valuation reserve under shareholders' equity (item "120 - Valuation reserves"); in the event of derecognition of the asset, the cumulative balance of this reserve is not reversed to the income statement but is reclassified under earnings reserves of equity (item "150 - Reserves).

Derecognition criteria

Financial assets are derecognised from financial statements: i) upon expiration of the contractual rights on the cash flows resulting from the assets or ii) when the financial assets are sold and all related risks/ benefits are transferred.

Equity investments

Classification criteria

This item includes equity interests held in subsidiaries, associates or joint ventures, which are recognised in accordance with the equity method.

Companies subject to significant influence are considered associates. It is assumed that the company exercises significant influence in all cases in which it holds at least 20% of the voting rights (including "potential" voting rights) and, regardless of the interest held, if the company has the power to participate in management and financial decisions of the investee, by virtue of specific legal connections, such as shareholder agreements, with the purpose for the agreement's participants to ensure representation in management bodies and to ensure management unity, without having control.

Entities are considered to be jointly controlled companies when control is shared between the Group and one or more other parties based on contractual agreements, according to which decisions are made through the unanimous consent of all parties that share control. For further information, please refer to section 7.6 “Key considerations and assumptions to determine the existence of joint control or significant influence” in Part B – “Assets” of these Notes to the financial statements.

Recognition criteria

Initial recognition of financial assets classified in this category occurs on the settlement date, for a total value equal to the cost, including any goodwill paid at the time of acquisition, which is therefore not subject to independent and separate recognition.

Measurement criteria and revenue recognition criteria

Equity investments recognised in this category are valued using the equity method. This method envisages that the initial book value is subsequently increased or decreased to reflect the Group’s share of the total profits and losses of the investee realised after the acquisition date as an offsetting entry to the income statement item “250 - Gains (losses) on investments”. If evidence of impairment indicates that there may have been a loss in value of an equity investment, then the recoverable value of the investment (which is the higher of the fair value, less costs to sell, and the value in use) should be estimated. The value in use is the present value of the future cash flows expected to be derived from the investment, including those arising from its final disposal. Should the recoverable value be less than its carrying amount, including any goodwill, the difference is recognized immediately in the income statement under item “250 - Gains (losses) on investments”. Should the reasons for impairment no longer apply as a result of an event occurring after the impairment was recognised, reversals of impairment losses are charged to the same item in the income statement, up to the amount of the previously recognised impairment.

The dividends from these equity investments are recognised in the Parent Company’s income statement, regardless of whether it was generated by the investee before or after the acquisition date. In the consolidated financial statements, these dividends are shown as a reduction in the book value of the investee.

Derecognition criteria

Investments are derecognised upon maturity of the contractual rights on the cash flows resulting from the assets or when the financial assets are sold and all related risks/rewards are transferred. If there is a situation that results in loss of significant influence or joint control, any residual equity investment is reclassified in the IFRS financial asset portfolios.

Quantitative disclosure

The table illustrates exposures in capital instruments broken down by the respective accounting portfolio. The values refer to Group accounting exposures included in the Banking Book and do not include exposures in equity investments (shareholding) which are deducted for the calculation of Own Funds. The item "financial assets available for sale" refers to equity investments whose shareholdings are lower than the controlling or associate interests.

Tab. 9.1 – Exposures in equities not included in the trading book

Type of exposure / values	*Amounts as at 31.12.2020*								
	Book value		Fair value		Market value	Gains / losses realized		Gains / losses not realized and recognized in net assets	
	Level 1	Level 2/3	Level 1	Level 2/3	Level 1	Profits	Losses	Plus (+)	Minus (-)
A. Equity investments	9,618	603,447	9,249	X	9,249		-	X	X
B. Financial assets available for sale	442	242,007	442	242,007	442		-746	11,065	-62,313
C. Financial assets measured at fair value through other comprehensive income: other financial assets measured at fair value as per mandatory requirements	658	5,535	658	5,535	658	6,983	-	-	-

X = not attributable value
The Financial Assets measured at fair value through other comprehensive income includes investments classified under assets held for sale in the balance sheet in the amount of EUR 0.1M.

In addition to exposures in the equity instruments illustrated above, the Group also holds the portion of UCITs EUR 159.8 mln included in Financial assets measured at *fair value* as summarized in table 9.2.

Tab. 9.2 – Units of UCITS: breakdown by main category

Categories/Amounts	Dec-2020	Dec-2019
Hedge Funds	26	398
Private Equity	60,304	75,133
Real estate	8,130	8,667
NPE	91,385	56,242
Total	**159,845**	**140,440**

The units of UCITS relate mostly to:
The interests held by the Parent Company in private equity funds, whose purpose is to increase the value of the respective equity through mainly medium to long-term investments chiefly in the purchase and/or subscription of shares, units and securities in general representing the equity of target enterprises, exclusively in the best interest of the investors.
91.3 million euros relating to shares - held by the Parent Company and the subsidiary MPS Capital Services S.p.A. - of the Italian mutual investment funds (Idea CCR I and II, Back2Bonis, Efesto). These funds aim to contribute to the relaunch of medium-sized Italian companies in financial difficulties.
The remaining portion of the Parent Company's UCITS portfolio consists of units of a closed-end real estate fund for qualified investors only, held by the Parent Company and by subsidiary MPSCS.
Maximum exposure to the risk of loss was determined to be equal to book value for exposures to UCITS units other than the financial and credit derivatives for which reference is made to positive fair value plus the add-on (calculated also taking into account positions with a negative fair value).
For UCITS, the maximum risk exposure also includes the Group's commitments not yet called up by the funds, to subscribe additional units. The standard approach is applied for calculating the capital requirements for these exposure.

10. Encumbered and unencumbered assets

The MPS Group adopts a diversified *business* model, based on traditional retail & commercial banking services, and also covering, via specialized companies, business areas such as *leasing*, *factoring*, corporate finance and *investment banking*.

Business financing strategies are based on the principle of diversification and are aimed at establishing an optimum *funding mix* in terms of supply channels, costs, maturities, stability of sources.

As part of the Group's funding strategies, the use of collateral, i.e. the pledging of *assets* (balance sheet or off-balance sheet assets) as collateral for liabilities – according to the guidelines set by the *encumbrance policies* and in accordance with the system of limits adopted by the Group – has a central role in achieving the objectives of reducing the average cost of *funding* and extending the maturities of liabilities. In fact, *secured* funding typically has a lower cost compared to *unsecured funding* makes it possible to meet maturities that are not easily achievable.

Encumbered assets, securing the Group's liabilities, include both marketable assets, consisting in securities (e.g. the bank's portfolio, retained ABS/ Covered Bonds, securities from *securities lending* transactions with customers) and non-marketable assets, mainly receivables meeting certain eligibility requirements in terms of contractual arrangements, standardization of clauses and creditworthiness.

These *assets* are mainly used for the following:

- Eurosystem refinancing operations (both TLTRO and MRO), in accordance with the applicable regulatory framework and secured by a pool of eligible securities and loans pledged by the Group;
- Securitisation transactions, carried out pursuant to Law no. 130/1999 and typically having residential mortgages, corporate loans to small and medium-sized enterprises, consumer credit and leasing contracts as underlying assets;
- Issuances of *Covered Bonds*, carried out pursuant to Law no. 130/1999 and the Supervisory framework (Bank of Italy 17.05.2007 as amended), based on two specific issuance programmes. The *pool* of collateral underlying the two programmes exclusively includes residential mortgage loans in one case (CB1), whilst it also includes commercial mortgages in the other case (CB2).
- *Securities Repurchase Transactions* ("Repo"), in bilateral form, pursuant to the standard contractual framework (GMRA) and any specific *confirmations* supplementing/derogating from the terms and conditions of the framework agreement;
- *Triparty Repo*, bilateral financing operations backed by marketable assets, in which operating and administrative collateral management activities are assigned to specialized entities, generally already acting as central custodians;
- Margin lending (in securities) for

repurchase agreements or derivative transactions, if required by the contract governing the underlying operations.

Quantitative Information

Information on the Group's encumbered and unencumbered assets was prepared on the basis of guidelines and templates issued by the EBA on 27 June 2014 in accordance with the provisions of Part eight, Title II of EU Regulations (CRR 575/2013), subsequently supplemented with the Commission Delegated Regulation (EU) 2017/ 2295 of 4 September 2017. To this end, an asset is considered as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise or credit-enhance any on-balance-sheet or off-balance-sheet transaction from which it cannot be freely withdrawn. Assets pledged that are subject to any restrictions in withdrawal, such as assets that require prior approval before withdrawal or replacement by other assets, should be considered encumbered. Generally, the following types of contracts are considered encumbered:

a. secured financing transactions, including repurchase contracts and agreements, securities lending and other forms of secured lending;
b. collateral agreements, for instance, collateral placed for the market value of derivatives transactions;
c. financial guarantees that are collateralised;
d. collateral placed in clearing systems, with central counterparties (CCPs) and with other infrastructure institutions as a condition for access to service; this includes default funds and initial margins;
e. *central bank facilities; pre-positioned assets* should be considered unencumbered only if the central bank allows withdrawal of assets placed without prior approval;
f. underlying assets from securitisation structures, where the financial assets have not been derecognised from the institution's financial assets; assets that are underlying fully retained securities do not count as encumbered, unless these securities are pledged or collateralised in any way to secure a transaction;
g. assets in *cover pools* used for covered bond issuance; assets that are underlying covered bonds count as encumbered, except in certain situations where the institution holds the corresponding covered bonds as referred to in Article 33 of the CRR.

The table below reports the amount of encumbered and unencumbered assets by asset type in accordance with Template A of EBA Guidelines of 27/06/2014 (subsequently supplemented with the Commission Delegated Regulation (EU) 2017/ 2295 of 4 September 2017) and based on the median values of the quarterly data. The encumbered assets are: on-balance sheet assets that have been either pledged or transferred without derecognition or otherwise encumbered; collateral received that meets the conditions for recognition in the balance sheet of the transferee in accordance with the applicable accounting framework.

Tab. 10.1 – Encumbered and unencumbered assets

Dec-20

	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
	010	030	040	050	060	080	090	100
Assets of the reporting institution	**52,699,927**	**38,054,994**			**91,290,836**	**8,442,655**		
Equity instruments	-	-	-	-	468,079	-	468,084	-
Debt securities	16,501,346	14,374,563	17,427,849	15,275,086	7,340,267	5,663,740	7,089,248	4,212,390
of which: covered bonds	*699,428*	*586,560*	*650,848*	*546,770*	*3,854*	*3,854*	*3,763*	*3,763*
of which: asset-backed securities	*1,728,923*	-	*1,758,205*	-	*793,665*	*96,887*	*749,395*	*96,884*
of which: issued by general governments	*13,541,488*	*13,347,573*	*14,497,161*	*14,297,775*	*5,164,755*	*5,059,217*	*5,164,265*	*3,682,681*
of which: issued by financial corporations	*2,835,343*	*933,165*	*2,868,171*	*925,742*	*1,796,548*	*467,103*	*1,573,291*	*431,466*
of which: issued by non-financial corporations	*124,515*	*93,824*	*129,589*	*98,740*	*336,453*	*112,103*	*304,255*	*117,333*
Other assets	36,198,493	23,680,431			83,495,887	2,778,915		

Dec-19

	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
		of which notionally eligible EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which EHQLA and HQLA
	010	030	040	050	060	080	090	100
Assets of the reporting institution	**44,775,660**	**28,354,802**			**87,408,664**	**13,889,039**		
Equity instruments	2,812	-	2,812	-	479,502	-	479,489	-
Debt securities	9,273,975	7,741,841	9,310,300	7,718,670	15,080,275	12,887,065	15,158,399	12,652,567
of which: covered bonds	*699,686*	*584,770*	*692,913*	*577,953*	*3,119*	*1,594*	*3,102*	*1,555*
of which: asset-backed securities	*1,048,155*	*29,894*	*1,053,246*	*29,894*	*1,827,190*	*40,732*	*1,836,290*	*40,730*
of which: issued by general governments	*6,776,023*	*6,610,678*	*6,735,134*	*6,622,543*	*12,729,799*	*12,268,730*	*12,822,499*	*12,392,025*
of which: issued by financial corporations	*2,329,896*	*1,073,425*	*2,343,852*	*1,065,490*	*2,479,000*	*217,737*	*2,403,989*	*216,901*
of which: issued by non-financial corporations	*147,577*	*107,563*	*146,595*	*106,460*	*165,181*	*35,573*	*164,586*	*35,294*
Other assets	36,269,617	20,547,487			71,402,209	981,422		

As at 31 December 2020 the Montepaschi Group registered Euro 52.70 bn of encumbered financial assets, accounting for approximately 37% of total assets, and mainly attributable to other assets 69%), in the form of loans other than loans on demand. Similarly, unencumbered assets mainly consist of other assets, in the form of loans other than loans on demand. The encumbered assets mostly refer to the Parent Company, Banca MPS.

Encumbered assets have increased compared with December 2020, when they amounted to 44.78 €/bn and accounted for 34% of total assets. Other assets with the same accounting value as the unencumbered assets, amounting to Euro 71.4 bn as at the end of December 2020 mainly consist of loans other than loans on demand (91%).

The table below shows the amount delle attività that does not meet the conditions for recognition in the balance sheet of the transferee in accordance with the applicable accounting framework, typically guarantees for securities lending transactions or repo agreements (assets), including repurchased own issued securities.

Approximately 81% of off-balance sheet assets - mainly consisting of debt securities received as collateral - were encumbered compared to 63% in the previous year. The *asset encumbrance ratio*, calculated pursuant to Regulation (EU) No 2015/79, compared to the "extended" Group Financial Accounts (and thus inclusive of the collateral received) stands at approximately 40% for 2020. At the end of 2019 it was approximately 36%.

Tab. 10.2 – Collateral received

	Dec-20				Dec-19			
			Unencumbered				Unencumbered	
	Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA		of which notionally eligible EHQLA and HQLA		of which EHQLA and HQLA
	010	030	040	060	010	030	040	060
Collateral received by the reporting institution	**9,082,721**	**8,991,328**	**2,187,152**	**2,154,611**	**6,222,763**	**6,062,018**	**3,578,182**	**3,501,654**
Loans on demand	-	-	-	-	-	-	-	-
Equity instruments	9,585	-	14,439	-	27,234	-	18,940	-
Debt securities	*9,075,610*	*8,991,328*	*2,172,738*	*2,154,611*	*6,200,531*	*6,062,018*	*3,559,241*	*3,501,654*
of which: covered bonds	*864*	-	-	-	-	-	-	-
of which: asset-backed securities	*930*	-	-	-	-	-	*20,775*	*800*
of which: issued by general governments	*9,051,734*	*8,978,729*	*2,115,998*	*2,115,997*	*5,262,609*	*5,260,643*	*3,428,634*	*3,428,634*
of which: issued by financial corporations	*24,119*	*8,714*	*61,852*	*24,641*	*938,525*	*905,372*	*102,693*	*61,362*
of which: issued by non-financial corporations	*7,868*	*3,016*	*188*	*12*	*25,518*	*16,277*	*2,073*	*251*
Loans and advances other than loans on demand	-	-	-	-	-	-	-	-
Other collateral received	-	-	-	-	-	-	-	-
Own debt securities issued other than own covered bonds or asset-backed securities	**51**	-	-	-	**4,545,697**	-	**410,638**	-
Own covered bonds and asset-backed securities issued and not yet pledged			**3,476,683**	**1,433,944**			**3,738,883**	**601,217**
TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	**61,782,698**	**47,046,321**			**55,255,090**	**34,332,584**		

The table 10.3 includes the total of the different sources of liabilities, of which the more significant for the MPS Group are repos (liabilities), collateralized deposits other than repos and debt securities issued. The assets reported refer to both on- and off-balance sheet assets.

Tab. 10.3 – Encumbered assets / collateral received and associated liabilities

	Dec-20		Dec-19	
	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
	010	030	010	030
Carrying amount of selected financial liabilities	46,141,682	55,554,212	38,578,743	48,670,065

The most quantitatively important items for the MPS Group in terms of encumbered assets are the pooling financing and the funding through Repos (liabilities) on the institutional market and with customers.

The ratio between "Assets, collateral received and own debt securities issued other than covered bonds and ABSs" and the corresponding "Financial liabilities, contingent liabilities and securities lent associated with encumbered assets" is at 120% due to the haircuts applied to the market value of the asset as part of refinancing transactions in the market (repos) and with the European Central Bank as well as to the overcollateralisation clauses established for the issue of Covered Bonds.

11. Exposures to securitisation transactions

11.1 General information

The Group operates in the securitisation market both as an originator, through the issue of notes from originated securitisations, and as an investor through subscription of securities from third-party securitisations.
As at today, the Montepaschi Group has not sponsored any securitisation transactions.
Originated securitisations include:

- securitisation transactions structured with the aim of deriving economic advantages regarding the optimisation of the loan portfolio, the diversification of sources of funding and the reduction of the cost of funding and the alignment of the natural maturities of assets and liabilities (securitisation transactions in the strict sense). To date the Group does not have any securitization transactions that substantially transfer all the risk and return of the portfolio transferred (securitization with derecognition).
- securitisations aimed at strengthening the available funding sources, through the conversion of the loans sold into securities that can be refinanced (self-securitisations). Self-securitisation transactions are part of the more general policy of strengthening the group's liquidity position and are not included in securitisations of a stricter sense since they do not transfer risk outside the Group.

For this reason, the numerical data concerning these transactions are not included in the tables under the quantitative section.
In order to optimize capital absorption, in December 2020 the Group also finalized two synthetic securitization transactions, in which the significant transfer of risk to investors was achieved, respectively, through the acquisition of cash collateral and of a financial guarantee eligible for CRR purposes.

Securitizations in the strict sense of the term

In general, this type of transaction involves the spin-off of a package of assets (generally loans) recognised in the balance sheet of Group Banks and its subsequent transfer to a *Special Purpose Vehicle*. The SPV, in turn, finances the purchase through the issue and placement of securities exclusively guaranteed by the assets received (ABS – *Asset-Backed Securities*). Resources raised in this way are returned to the Montepaschi Group (the seller), whereas commitments to subscribers are met using the cash flows generated by the loans sold. Following is an outline of the Group's main securitisation transactions outstanding at 31 December 2019 - broken down into quality/type of underlying and vehicle company.

For all structured securitisation transactions, the Group, as the *Originator,* retained a minimum economic interest of at least 5%, in compliance with the *retention* rule.

- Securitisation of **performing loans**:
  - Siena Mortgages 10-7 Srl (2010, BMPS);
- Siena PMI 2016 Serie 2 Srl (2019).
- securitisation of **non-performing loans:**
  - Norma Srl 2017 (2017, Multioriginator)
  - Siena NPL 2018 Srl (2017, BMPS, MPSCS, MPSLF).

Siena Mortgages 10-7 S.r.l

This securitisation transaction was carried out on 30 September 2010. Its portfolio contained 34,971 BMPS performing, real estate backed loans for a total outstanding debt of approx. Euro 3.5 bn. The special-purpose vehicle Siena Mortgages 10–7 is 93% owned by Stichting Canova, a foundation incorporated under Dutch law, and the remaining part is owned by the Parent Company.

The remaining debt balance amounted to EUR 1,210.86 mln as at 31/12/2020 (16,073 outstanding mortgages).

Classes A1 and A2 were placed with market investors, whereas the remaining classes of notes issued by the vehicle were initially underwritten by the Parent Company and a part of them (from Class 3) were sold on the market. The deal has not entailed the *derecognition* of the underlying assets from the balance sheet of the Parent Company (transferor), which has substantially retained all risks and rewards associated with the property of the assets sold.

Siena PMI 2016 Serie 2 Srl

In 2019, the Group finalised, through the vehicle called Siena PMI 2016 S.r.l., a securitisation transaction in accordance with Regulation (EU) 2402/2017 with entry into force 1 January 2019. The transactions was completed on 12 April 2019 through the disposal to a Vehicle of a portfolio of performing loan agreements granted to Italian small to medium sized enterprises, in the amount of EUR 2,258.4 mln. As at 31 December 2020, the remaining debt was EUR 1,285.27 mln, for a total of 15,698 loan agreements.

To finance the acquisition, the Vehicle issued, ABS notes in the classes hereinafter indicated (in parenthesis the rating attributed by the Fitch and DBRS agencies as at 31 December 2020):

- Class A1 notes for a nominal amount of EUR 519.40 mln, were redeemed;
- Class A2 notes (AA and AAA) for a nominal amount of EUR 813.0 mln, as of 31 December 2020;
- Class B notes (AA- and AAL) for a nominal amount of EUR 225.8 mln;
- Class C notes (BB+ and BBH) for a nominal amount of EUR 271.0 mln;
- Class D notes (CCC and C) for a nominal amount of EUR 248.5 mln.
- Class J notes (not rated) for a nominal amount of EUR 180.7 mln.

The Class A2 notes were placed with institutional investors for a total of EUR 720 mln; the remaining senior notes, together with the mezzanine and junior notes, were instead underwritten by the Parent Company that can dispose them with the next sale on the market or can use them as collaterals for loan transactions.

The partial sale of the notes did not entail the *derecognition* of the underlying assets from the balance sheet of the Parent Company (transferor), which has substantially retained all risks and rewards associated with the ownership of the assets sold.

Norma SPV Srl

On 1 July 2017, as part of a securitisation of *non-performing* loans originated by MPS Group banks as well as banks outside the MPS Group, Banca MPS and MPS Capital Services completed the disposal of a portfolio of *non-performing* loans in the *real estate* and *shipping sectors*.

At the disposal date, the total portfolio acquired by the vehicle consisted of 54 loans for a value of EUR 495.49 mln, of which 12 loans disbursed by Banca MPS for a value of EUR 24 mln for "*real estate*" and EUR 145.3 mln for "shipping", and 7 loans disbursed by MPS Capital Services for a value of EUR 28.8 mln for "real estate" and USD 86.8 mln for "*shipping*".

To fund the acquisition of this portfolio, on 21 July 2017 the Vehicle issued Class A1, B, C and D ABS securities (the "securities") for the real estate sector and Class A1, B, C1, C2 and D ABS securities for the shipping sector. The senior classes of both the real estate and shipping transactions were placed with institutional investors, while the mezzanine and junior classes were subscribed by each transferring bank in proportion with the transferred loans. In particular, the MPS Group subscribed the following classes:

- Real Estate: Class B for a nominal amount of EUR 31.2 mln; Class C for a nominal amount of EUR 4.2 mln; Class D for a nominal amount of EUR 15.8 mln.
- Shipping: Class B for a nominal amount of EUR 75.5 mln; Class C1 for a nominal amount of EUR 32.7 mln; Class C2 for a nominal amount of EUR 10.4 mln; Class D for a nominal amount of EUR 105.6 mln.

In January 2020, the derecognition of the underlying assets from the balance sheet of the Parent Company (transferor) was completed

At 31 December 2020, the amortized nominal value of the classes subscribed by the MPS Group is as follows:

- Real Estate: Class B 10.63 €mln; Class C 4.21 €mln; Class D 15.83 €mln.
- Shipping: Class B 70.63 €mln; Class C1 30.64 €mln; Class C2 9.75 €mln; Class D 98.88 €mln.

Siena NPL 2018 Srl

This is the Securitisation transaction included in the 2017-2021 Restructuring Plan for the disposal of the bad loans portfolio as at 31 December 2016, with a gross book value of approximately €24.58BN as at 31 December 2016, through the Italian Recovery Fund.

The Securitisation transaction, regulated pursuant to Law no. 130/1999 and concerning the purchase without recourse of a portfolio of loans which, as at 31 December 2016, were classified under bad loan status by Banca Monte dei Paschi di Siena S.p.A., MPS Capital Services Banca per le Imprese S.p.A. and Monte dei Paschi di Siena Leasing & Factoring, Banca per i Servizi Finanziari alle Imprese S.p.A., was completed on 28 December 2017. The total sale price of the receivables included in the Portfolio is approximately Euro 5.06BN (20.58% of the GBV as at 31 December 2016). The portfolio's GBV as at 31 December 2020 was €21.61 bn.

The vehicle financed acquisition of the portfolio through issuance of the following asset-backed securities (the "Securities"), with limited recourse:

(i) Senior A1 notes for EUR 2,683.5 mln;

(ii) Senior A2 notes for EUR 412.1 mln;

(iii) Mezzanine notes for EUR 847.6 mln;

(iv) Junior notes for EUR 565.0 mlncentralised in dematerialised form at Monte Titoli S.p.A. and initially not listed on any Italian and/or foreign regulated market.

The transaction complied with the timeline of the 2017-2021 Restructuring Plan and the agreements with Quaestio Capital SGR S.p.A. On 9 January 2018, the transfer was completed of 95% of the mezzanine notes to Quaestio Capital SGR on behalf of *Italian Recovery Fund* (Fondo Atlante II). In May 2018, at the end of the rating assignment process, the *Senior notes* were restructured into a single class, obtaining an *investment grade* rating from the 3 ratings agencies involved. The securities issued by the vehicle following the restructuring were the following:

(i) Senior A notes for EUR 2,918 mln, rating A3/BBB+/BBB (Moody's/Scope Ratings/ DBRS). The outstanding amount as at 31 December 2020 was EUR 1,888.63 mln. As of 31 December 2020, the rating was A3/ BBB+/BB high (Moody's/Scope Ratings/ DBRS);

(ii) Mezzanine B notes for EUR 847.6 mln, without rating and transferred to the Italian Recovery Fund managed by Quaestio Capital SGR .The *outstanding* amount as at 31 December 2020, due to the capitalisation of the interest, was about EUR 856.97 mln;

(iii) Junior notes for EUR 565.0 mln, without rating.

In June 2018, the sale of 95% of the junior notes to *Italian Recovery Fund* made it possible to achieve, in addition to the sale of the mezzanine notes, the deconsolidation of the entire securitised portfolio.

Lastly, in July 2018, the MEF granted, with its decree, the government guarantee (GACS) on the senior tranche of the securitisation. Obtainment of the GACS completed the entire securitisation process.

For all the securitisation transactions described above (and described subsequently), during the period under review the Parent Company and its subsidiaries have not provided any financial or other support without being obliged under the contract. There are no cases of financial or other support to a previously non-consolidated structured entity as a result of which the structured entity was controlled by the Group.

The Group also does not intend to provide financial or other support to consolidated securitisation vehicles, nor to assist entities in obtaining financial support.

Self-Securitisations

These transactions involve the transfer of a portfolio of loans originated by Group Banks to a Special Purpose Entity which, in turn, finances the purchase through the issue of *Asset Backed Securities (ABS)* . All *Asset Backed Securities* (ABS) issued are underwritten by the Parent Company. The Group's full underwriting still provided the Group with securities that could be used for ECB refinancing (limited to *senior traches* as ECB *eligible*) and repo transactions by increasing the availability of disposable assets, thus improving the MPS's safety margin against the MPS Group's liquidity risk position *(counterbalancing capacity)*.

Here follows a list of the self-securitisations as at 31 December 2020:

- Siena Mortgages 07 -5 Srl (2007);
- Siena Mortgages 07 -5/Serie 2 Srl (2008);
- Siena Mortgages 09 -6 (2009);
- Siena PMI 2016 Srl (2016);
- Siena Lease 2016-2 (2016).

The first two transactions, involving performing residential mortgage loans *in bonis* were carried out in December 2007 (Euro 5.2 bn) and March 2008 (Euro 3.4 bn) for an overall amount of Euro 8.6 bn, through the vehicle, Siena mortgages 07-5 Srl.

In 2009, two new transactions were added (Euro 4.4 bn as at February 2009 and Euro 4.1 bn as at June 2009 and closed at 2016), involving performing loans *in bonis* through the vehicle, Siena mortgages 09 – 6 Srl.

The transaction Siena PMI 2016 was finalised on September 2016 through the sale of a portfolio of performing loans to Italian small and medium sized enterprises, for a total of EUR 1.74 bn

On 3 December 2015, the subsidiary MPS Leasing & Factoring sold a portfolio consisting of 13,181 performing finance leases totalling EUR 1,619.8 mln to the Vehicle company "Siena Lease 2016-2 Srl".

Self-securitisations do not contribute to the numerical data reported in the following tables of the quantitative disclosure, because - as was explained above - they do not constitute securitizations in the strict sense of the term.

Synthetic securitization transactions

The reference legislation for synthetic securitization transactions is Regulation (EU) 575/2013 (Capital Requirements Regulation, "CRR"); it establishes, in art. 245, the conditions under which the Significant Risk Transfer (SRT) criterion is met, i.e. the significant transfer of risk to third parties through real or personal credit protection. In particular, the SRT must be constantly monitored during the life of the transaction, in order to verify that the criteria envisaged by the regulations are respected. In compliance with art. 6 of EU Regulation

2017/2402 ("Securitization Regulation"), the Originator must retain (Retention), on a continuing basis, a significant net economic interest in the securitization of no less than 5%. In the structure of the transactions chosen by the Group, the risk retention obligation is satisfied by the originator through the maintenance of at least 5% of the nominal value of each of the securitized exposures pursuant to art. 5, paragraph 1, letter a) of EU Regulation 625/2014 (Vertical slice or Vertical Retention).In general, it is envisaged, through the stipulation of guarantee contracts, the purchase of protection of the credit risk underlying a loan portfolio, of which the Originator retains full ownership and the relative servicing management. These transactions are therefore aimed at transferring the credit risk from the originator to an external counterparty. This transfer does not entail the derecognition of assets and, therefore, assets remain in the *Originator*'s financial statements.

In 2020, the Group carried out two synthetic securitisation transactions, completed in December 2020 and named "Siena 2020 - FEI transaction" and "Siena 2020 - RegCap-1".

Siena 2020 – FEI transaction

Siena 2020 - FEI transaction was carried out by participating in the "SME Initiative Italy" launched by the European Investment Fund (EIF).

Given an initiative co-financed by the European Union, with the contribution of various Member States and by the EIF itself, its objective is to allow member banks to reduce RWAs generated by the portfolio and, at the same time, provide support to companies located in eight Mezzogiorno regions, in Southern Italy (Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardinia and Sicily), through the disbursement of loans under subsidised financial terms. The following tranches have been identified:

- Senior tranche: for a nominal value of 1,389.9 €/mln;
- Mezzanine tranches: for a nominal value of 55.7 €/mln;
- Junior tranche: for a nominal value 40.8 €/mln.

The Senior tranche is retained by BMPS, the three Mezzanine tranches, and 50% of the Junior tranche have been guaranteed by European Investment Fund (EIF). The financial guarantee provided by EIF is an unfunded personal guarantee.

Siena 2020 - RegCap-1

"Siena 2020 - RegCap-1" transaction was completed in December 2020 and involved a portfolio of loans to Corporate and SME Corporate, with a remaining debt balance of approx. 1.9 €bn.

The following tranches have been identified:

- Senior: for a nominal value of 1,642 €/mln;
- Junior: for a nominal value 123.6 €/mln.

Third-party securitizations

The Group allocates a part of its capital to stock market investments, with the objective to:

- attain a risk-adjusted return that is significantly higher than the cost of allocated capital so as to create value for the shareholders;
- diversify risks with respect to other risks that are typical of its business;
- maintain in-depth and up-to-date knowledge of financial market trends which additionally and inevitably condition the domestic markets in which the Group mainly operates.

Activities are overseen by the Finance, Treasury and Capital Management Area and are carried out within a broad and varied range of potential financial market areas so as to draw maximum benefit from risk diversification and reduced exposure to individual sectors: from investment activities in the government bonds, securities and forex markets to activities in the corporate bond and *credit derivative* markets.

Third-party securitisations are compliant with the above-mentioned process of diversification and with the support of a specialised desk within the subsidiary, Mps Capital Services. The investment process starts with the analyses carried out by the traders in a bottom-up logic and is included in the overall monitoring of portfolio risks. As with all operations in securities markets, these investments are subject to risk limits set by the Board of Directors that are monitored daily by the *Business Control Units* and Risk Management; *Stop loss*, risk and nominal limits are defined for maximum exposure for major issuer categories broken down by rating.

Methods for calculating risk weighted exposures

Starting from 1 January 2019, MPS Group is subject to a new regulatory *framework* on securitisation exposures introduced into the European Union by Regulations n. 2017/2401 and n. 2017/2402. The Regulation (EU) 2017/2401 of 12 December 2017 amending Regulation (EU) n. 575/2013 (CRR) as regards calculation of capital requirements for securitisations.

In respect of securitisations the securities of which were issued before 1 January 2019, institutions shall continue to apply the CRR provisions in force as of 31 December 2018.

Under the new framework, for the calculation of capital requirements for securitisations the securities of which were issued before 1 January 2019, the Group applies the following three methods, according to a sequential approach:

- Securitisation IRB Approach (SEC-IRBA);
- Securitisation Standardised Approach (SEC-SA);
- Securitisation External Ratings Based Approach (SEC-ERBA).

For rated positions or positions in respect of which an inferred rating may be used, the Group uses the SEC-ERBA instead of the SEC-SA in each of the following cases:

1. where the application of the SEC-SA would result in a risk weight higher than 25% for positions qualifying as positions in an STS (*Simple, Transparent and*

Standardised) securitization, pursuant to Regulation (EU) 2017/2402;

2. where the application of the SEC-SA would result in a risk weight higher than 25 % or the application of the SEC-ERBA would result in a risk weight higher than 75 % for positions not qualifying as positions in an STS securitisation;
3. for securitisation transactions backed by pools of auto loans, auto leases and equipment leases.

Starting from 1 January 2020, the Group uses, pursuant to Regulation (EU) 2017/2401, the SEC-ERBA for rated positions. Under the standardized approach, riskweighted exposure is calculated by applying a 'weight' depending on the ratings assigned by an External Credit Assessment Institution (ECAI) to the securitised exposures (in the banking book and trading book). The ECAIs used by the group for positions in shortterm rated securitisations and securitisations other than those with a short-term rating, include:

- *Fitch Rating Ltd,*
- *Moody's Investors Service Ltd,*
- *Standard & Poor's Rating Services.*

Accounting policies

The "Servizio Bilancio" (Budged Department) manages the correct application of international accounting standards in the treatment of securitization transactions.

Montepaschi Group has traditional securitisations (a distinction can be made between transactions with derecognition and without derecognition, including the subset of "self-securitisations") and, from this year, also synthetic securitisations.

For the classification of traditional securitisations, the effective transfer of risks and benefits is assessed, in accordance with the provisions of IFRS 9 at § 3.2.7, by comparing the exposure of the originator (before and after the transfer) with the variability, in amount and timing, of the net cash flows of the financial asset transferred.

The originator essentially retains all the risks and benefits, when its exposure to the variability of the present value of the future net cash flows of the financial asset does not change significantly following the transfer; in this case, despite the formal transfer of the legal ownership of the receivables, these are not removed from the financial statements of the originator (securitisation without derecognition).

For notes not retained by the originator but placed on the market, a liability is recorded with the vehicle company. In the case where all the liabilities issued by the vehicle company are subscribed by the originator, this is known as "self-securitization".

It is instead considered that the originator transfers the risks and benefits when its exposure to fluctuations in the present value of the expected cash flows is not significant in relation to the variability linked to the instrument, prior to its transfer. In this case, the notes issued by the vehicle are placed on the market and not retained by the originator (or only to a very small extent); in this case the receivables sold are removed from the balance sheet (securitization with derecognition) while any notes withheld are recorded.

In relation to the securitizations carried out, the Parent Company has set up provisions, amounting to 126.35 million euros as of 31 December 2020, recorded in the Financial Statements as a credit position with the vehicles. For all the securitisation transactions, during the period under review the Parent Company and its subsidiaries have not provided any financial or other support without being obliged under the contract.

If the Group had agreements that could require the provision of financial support for securitised assets, they would be accounted secondo IAS 37 "Provisions, Contingent Liabilities and Contingent Assets".

With regard to synthetic securitisations, there is no impact on the balance sheet, whereas, from an economic point of view, the following are recorded: i) commission expenses paid to the protection seller for the guarantee received on the portfolio of receivables underlying the securitisation and ii) value readjustments for credit risk on the securitised portfolio as a benefit for the Group deriving from the guarantee.

Financial assets awaiting securitisation (to be realised within one year) are classified among non-current assets and assets held for sale, according to IFRS 5, if the securitisation meets the derecognition requirements envisaged by IFRS 9, otherwise the assets sold, legally but not for accounting purposes, remain recorded in the original accounting portfolio: financial assets at amortised cost or other assets compulsorily valued at fair value following the related accounting rules envisaged by IFRS 9.

Control System and Top Management Reporting

The securitisation management process is defined by a specific internal regulations which assigns roles and responsibilities to the various organisational units involved in the individual phases of the process.

The Parent Company's Structural Liquidity Service establishes general practices and coordinates activities in relation to securitisation transactions. The Montepaschi Group set up a specific unit within the Parent Company's Specialised Processes and Services Area, responsible for the management of *performing* securitisations. More specifically, the Special-purpose Loans and Securitisations Service within this area looks after aspects and obligations associated with *servicing* activities.

The trend of the transactions is steadily monitored through the periodical (monthly and quarterly) recording of remaining principal repayment flows, default and bad debt positions generated by these securitisations.

In coordination with other originator Banks in the Group, the Special-Purpose Loans and Securitisations Service prepares summary reports on portfolios sold ("*Servicer reports*").

In addition, as part of critical situation management, The Parent Company's Structural Liquidity Service notifies cases that may pose potential risks for noteholders to the relevant functions in the organisation.

In its capacity as third-level control body, the Risk Audit Service uses sampling procedures to periodically validate:

- whether the degree of recoverability of loans sold is accurate and, as a result, whether the *fair value* of securities issued is appropriate;
- whether line checks assigned to the various units have been carried out and roles and responsibilities properly identified;
- it also verifies the compliance of reporting/accounting procedures with current regulations in collaboration with other units, as necessary;
- the existence of any conflicts of interest with respect to noteholders; and compliance, on a sampling basis, with the obligations of law 197/91, as amended.

Non-performing securitisations, on the other hand, are handled by the Distressed Credit Risk Departmental Sector, while all activities connected with the securitisation of loans originated by other subsidiaries (in particular MPS Leasing&Factoring) are managed by the subsidiaries themselves.

Risk-hedging policies

With regard to monitoring procedures for risks inherent in own securitisations, the Bank uses the control tools already in place for portfolio risks. Pursuant to the provisions set out in the Supervisory Instructions Issued by the Bank of Italy on this subject, the Bank makes sure that the overall transactions are managed in compliance with the law and the prospectuses.

When transactions are structured, it is the responsibility of the Structural Liquidity Service in collaboration with the *Arranger* and liaising with the asset-holding unit, the Standard and Credit policies function and Risk Management, to submit to the approval of the Finance Committee the definition of the *hedging* strategy as well as the potential recourse to a back-to-back swap as a way to hedge against the risks of fluctuations in the interest rates of securitised assets.

With regard to procedures aimed at monitoring the risks of third party securitisations, the Bank uses the control tools and internal models implemented for the measurement and management of market risks in line with the qualitative and quantitative requirements set out by the regulatory authorities. In deail, the BoD-defined limits of the following are monitored: *Stop loss, Value at Risk (VaR)* and nominal limits of maximum exposure by issuer's product categories, broken down by rating classes. Finally, the appropriateness and quality of the market settings applied to *Front Office* and market risk management are monitored, as are the frequency and quality of upgrades. Traditional securitisations and self-securitisations originated by the Group are also relevant for liquidity risk monitoring and management. Securitisations have been used by the Group in recent years primarily with a view to 'certificate' commercial assets, using hem for ECB refinancing transactions and collateralised securities lending. In order to maximise the efficiency and economic advantageousness of these transactions, some of the structuring roles required are generally carried out by the *originator bank* itself. In particular, the roles that are particularly relevant for the purpose of liquidity management include the following:

- *Servicer*: the originating entity, which manages the cash flows and usually maintains a direct relationship with its own customers, avoiding disclosure of the list of debtors sold to a third party entrusted with the collection of payments for -and daily management of- the portfolio in question;
- *Account Bank***:** the entity that acts as a custodian of the securitisation liquidity, i.e. the depository bank for the collections that the *servicer* deposits on a daily basis;
- Interest rate hedging contract counterparty**:** the direct counterparty for swaps/caps hedging interest rate risk of vehicles.

To fulfil the above roles, the entity is required to comply with specific credit market requirements for the entire period in which the transaction is in place. To maintain the rating of its transactions, if the creditworthiness of the *originator* is downgraded to a rating below the minimum levels set out by the Rating Agencies, the originator will be required to put in place remedies which may expose it to liquidity risk.

More specifically:

- in order to maintain the role of *Servicer*, if the bank's rating is downgraded to below the levels set out by the rating agencies, it will be required to fund a reserve, known as the *commingling* reserve which, should a default occur, will provide hedging against the risk that the amounts collected on behalf of the vehicle and not yet credited to the vehicle's accounts may fall into the funds available for the general body of creditors of the bankrupt bank;
- for the role of *Account Bank,* Rating Agencies may require a third bank to be entrusted with the custody of the vehicles' financial assets;
- for the role of Counterparty hedge against interest rate risk, if credit scoring is below a certain level, Agencies may require either replacement of (or a guarantee from) the counterparty or specific collateralization. Externalisation or derivative guarantee may instead be imposed by the agencies if creditworthiness is below a certain limit threshold.

Covered Bond Transactions

The MPS Group currently has two Covered Bond programmes for a total plafond of Euro 40 bn. In the course of 2010, the Montepaschi Group launched a first programme for the issuance of Covered Bonds for an amount of Euro 10 bn, increased at the end of 2017 to Euro 20 bn. In light of the developments in the financial markets, the programme should be considered as part of a wider strategy, aimed at:

- curbing the costs of funding: covered bonds are widely preferred, inasmuch as they are issued directly by the bank and their repayment is guaranteed by a segregated pool of assets (in this case, residential mortgage loans); in the event of issuer bankruptcy, covered bond holders enjoy a right of recourse on a portfolio of segregated high-quality assets and are, therefore, willing to accept a lower yield than the one offered by similar uncovered bonds;
- diversifying the bank's funding sources on the international market too;
- lengthening its average debt maturity profile.

On 26 June 2015, the meeting of *covered bond* holders approved the proposed amendments to the Programme which made it possible to:

- amend the Programme, to obtain a rating from DBRS (in addition to Moody's and Fitch) for the covered bonds issued and to be issued as part of the Programme;
- activate, if specific cases of default take place pursuant to the Programme, a "*conditional pass through*" type mechanism for the repayment of the bonds issued.

With a view to improving the efficiency and stability of the Group's *counterbalancing capacity*, in 2012 a second issuance programme was authorised for a maximum of Euro 20 bn. The covered bonds were not explicitly rated when launched but, in the course of 2013, were assigned a rating (A) by the agency DBRS. The second programme is not intended for the market but for transactions eligible as collateral in refinancing transactions through the European Central Bank.

These transactions are structured into the following stages:

a) the Parent Company, or other Group Company, transfers, *without recourse*, a pool of assets having certain characteristics to the vehicle (MPS Covered Bond S.r.l. and MPS Covered Bond 2 S.r.l), thus forming a segregated *Cover Pool*;

b) the Transferor grants a subordinated loan to the vehicle, for the purpose of financing payment of the assets' purchase price by the vehicle;

c) the Parent Company issues covered bonds secured by an autonomous, irrevocable and unconditional first demand guarantee issued by the vehicle for the only benefit of the bond-holding investors and senior debtors involved in the transaction; the guarantee involves limited recourse to the assets of the Cover Pool owned by the vehicle (*guarantor*).

The structure of the deal is such that the Parent Company is the transferor (a), lender (b) and issuer (c) in the transaction.

The programmes, in both cases, were structured in compliance with applicable rules and regulations which authorise the issuance of covered bonds only if the transferring and issuing banks meet certain capital requirements.

The structure of the debt issuance programmes of the Parent Company (transferor and servicer) is subject to stringent regulatory requirements and calls for continuous actions by the Specialised Credit Processes and Services Area; Finance, Treasury & Capital Management and Risk Management Areas, as well as supervision by an external auditor (Deloitte & Touche) as asset monitors. In particular, these actions include:

- assessment of capital requirements mandated by Supervisory Instructions when it comes to covered bond issuance programmes;
- assessment of the quality and integrity of assets transferred with regard, in particular, to the estimated value of properties, both residential and non-residential, on which a mortgage in relation with the asset-backed loans is placed; this assessment may result in repurchases, integrations and additional transfers of supplemental assets;
- assessment of an appropriate ratio being maintained between bonds issued and assets transferred as collateral (Cover Pool -mortgage and residential assets; commercial assets for the second programme);
- assessment of transfer limits and integration practices;

- assessment on whether risks are effectively and adequately hedged by derivative contracts in relation to the transaction.

In order to allow the transferee to meet the obligations of the collateral pledged, the Parent Company uses appropriate Asset & Liability Management techniques to secure a trend of substantial balance between the maturities of cash flows arising from the assets sold and maturities of payments due in relation with the covered bonds issued and other costs of the transaction.

With regard to the first program, in particular, an interest rate risk mitigation strategy has been implemented over the years aimed at hedging the net exposure of the vehicle against interest rate risk. As of 31 December 2020 there are two Covered Bond Swaps in place for a total amount of €2 billion.

The paragraphs below provide information on the nature of the risks associated with the interest in the MPS Covered Bond S.r.l. vehicle, whose *assets* are pledged as collateral of bond issues of the Parent Company partly placed with the market.

In particular, the terms of the agreements that could require the Group to provide financial support to the vehicle MPS Covered Bond S.r.l. are as follows:

- the Parent Company undertakes, in accordance with the programme's terms, to ensure compliance over time with the regulatory and contractual tests determined according to the methodologies set by the rating agencies from time to time
- if the Parent Company's rating decreases below "BBB(low)" (DBRS), "BBB-" (Fitch) and "Baa3" (Moody's), the repayment of each subordinated loan will be delayed by 6 months after the original expiry, (unless early loan repayment is necessary to allow for compliance with the maximum limit of cash that may be accumulated by the Vehicle, established by regulation as 15% of the total of the cover pool, to the extent to which it is not possible for the Vehicle to acquire new suitable assets to replace cash, pursuant to the Framework Transfer Agreement);
- in accordance with the Master Definition Agreement, the Parent Company shall allocate and change the amount of the variable liquidity reserve according to criteria agreed upon with the rating agencies.

During the period under review the Parent Company and its subsidiaries did not provide any financial or other support without being obliged under the contract.

There are no cases of financial or other support to a previously non-consolidated structured entity as a result of which the structured entity was controlled by the Group.

The Group does not intend to provide financial or other support to the vehicle, nor to assist the entity in obtaining financial support.

Description of individual issuances

In order to support the issuances of Covered Bonds in the first programme, the Parent Company transferred a portfolio of approximately 234,441 thousand mortgages for a total value of Euro 24.1 bn, consisting in *performing* residential mortgages in real estate and building secured by 1st mortgages and with all instalments regularly paid as at the date of valuation of the portfolio.

Here follows a summary of the main characteristics regarding transfers in the first Programme:

Date of sale	Portfolio	Loans Number	Amount (€/bln)
25/05/10	Loans BMPS	36,711	4.42
19/11/10	Loans BMPS	19,058	2.41
25/02/11	Loans BMPS	40,627	3.89
25/05/11	Loans BMPS (ex BAV)	26,804	2.35
16/09/11	Loans BMPS	27,973	2.33
14/06/13	Loans BMPS	4,259	0.42
18/09/15	Loans BMPS	15,080	1.53
31/10/16	Loans BMPS	7,630	0.78
22/12/16	Loans BMPS	1,903	0.24
03/05/18	Loans BMPS	12,401	1.32
27/02/19	Loans BMPS	16,880	1.81
16/10/19	Loans BMPS	12,008	1.27
15/06/20	Loans BMPS	13,107	1.43
	Total	**234,441**	**24.02**

As part of its first issuance programme, the Parent Company completed a total of 30 issuances, 12 of which had not yet matured or been repaid early for a total, as at 31 December 20120, of EUR 8,200 mln, of which EUR 6,265.5 mln were placed on the market, while EUR 1,934.5 mln were repurchased by the Parent Company and by the Subsidiary Companies MPS Capital Services.

The remaining debt balance on the portfolio as at 31 December 2020 amounted to EUR 11,884.86 mln for 147,923 mortgages.

In 2020 the following securities were issued as part of the first Programme:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
29/01/19	1	2.00%	29/01/24
08/10/19	1	0.88%	08/10/26
Total	**2**		

As part of the second Programme, the remaining debt balance on the portfolio as at 31 December 2020 amounted to EUR 8,579.26 mln for 90,231 mortgages. On 21 February 2020, a portfolio containing 8,625 residential and commercial mortgage loans was sold for € 1,034.5.

Date of sale	Portfolio	Amount (€/bln)	Loans number
30/04/12	Residential Mortgages	2.38	27,047
26/06/12	Commercial Mortgages	2.47	13,993
28/08/12	Residential and Commercial Mortgages	1.4	17,353
24/09/12	Residential and Commercial Mortgages	2.47	9,870
18/02/13	Residential and Commercial Mortgages	1.29	9,033
24/06/13	Residential and Commercial Mortgages	2.15	12,771
25/03/14	Residential and Commercial Mortgages	1.46	5,645
20/10/15	Residential and Commercial Mortgages	0.98	5,671
18/07/16	Residential and Commercial Mortgages	2.01	24,162
26/08/16	Residential and Commercial Mortgages	0.81	7,211
24/03/17	Residential and Commercial Mortgages	0.79	5,799
08/05/18	Residential and Commercial Mortgages	0.69	4,718
09/11/18	Residential and Commercial Mortgages	0.47	3,002
27/09/19	Residential and Commercial Mortgages	0.73	4,549
21/02/20	Residential and Commercial Mortgages	1.03	8,625
Total		**21.15**	**159,449**

Management of the new Covered Bond Programme follows the proven processes and controls already adopted for management of As part of the second programme, the Parent Company completed thirty-five issuances (of which

14 not yet matured or redeemed early), which were not intended for the market but repurchased by the Parent Company and used as collateral for refinancing transactions in the Eurosystem, for a total as at 31 December 2020 of EUR 7,650 mln.

The following issues were made in 2020:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
12/02/20	0.500	3mE + 0.60%	29/07/23
12/02/20	0.600	3mE + 0.65%	29/10/23
16/09/20	0.750	3mE + 0.52%	29/01/24
16/09/20	0.750	3mE + 0.53%	29/04/24
Totale	**2.60**		

From an accounting viewpoint, both covered bond transactions did not involve the derecognition of assets sold and consequent recognition in the balance sheet of swaps connected with the transaction. It should be noted that:

- transferred loans continue to be reported in the Parent Company's balance sheet inasmuch as the Parent Company retains the risks and rewards of ownership of the loans transferred;
- the loan disbursed by the Parent to the Vehicle is not classified as a separate item in the balance sheet, since it is offset with the amount due to the Vehicle in which the initial transfer price was recognised. The loan, therefore, is not subject to credit risk assessment, because this risk is entirely reflected in the assessment of transferred loans, which continue to be reported in the Parent Company's balance sheet;
- loans are subject to movements based on own events (figures and assessment);
- instalments collected by the Parent (which also acts as a servicer) are reallocated daily to the Vehicle's "collection account" and accounted for by the Parent as follows:
  - collection of principal from borrower is recognised as an offsetting entry to the reduction in the loan to the borrower;
  - reallocation of principal to the Vehicle is recognised as an offsetting entry to the recognition of a loan to the Vehicle; this loan is paid off upon repayment of the subordinated loan;
  - interest received by borrower is recognized as an offsetting entry to account 10 "Interest income: loans to customers" (interest on loans continues to be recognised on an accrual basis);
  - reallocation of interest to the Vehicle is recognised as an offsetting entry to the recognition of a loan to the Vehicle;
  - this loan is paid off upon collection of the receive leg of the *Cover Pool Swap*.
- the Vehicle "MPS Covered Bond S.r.l." is invested in by the Parent Company for a control stake of 90%, recognised under account 100 "Equity investments"

and included in the Group's consolidated financial statements under the comprehensive approach;

- the vehicle "MPS Covered Bond 2 S.r.l." is invested in by the Parent company for a control stake of 90%, recognised under Account 100 "Equity investments" and included in the Group's consolidated financial statements under the comprehensive approach;
- bonds issued are posted to Account 10 "Financial liabilities measured at amortised cost - c) debts securities issued", and related interest expense is recognized on an accrual basis.

The following tables report the Group's overall exposures in securitisations.

Quantitative disclosure

Tab. 11.2.1 – Exposures securitised by the MPS Group

Type of Assets / Exposures securitised	Exposure		Losses for the period
	net	of witch impaired	
RMBS	**1,180,709**	**74,261**	-
Non-performing loans	-	-	-
Mortgages	1,180,709	74,261	-
Siena Mortgages 10 - 7 (Banca MPS)	1,180,709	74,261	-
ABS	**1,269,126**	**13**	-
Consumer Credit	-	-	-
Performing loans to SMEs	1,269,126	13	-
Siena PMI 2016 seconda serie (Banca MPS)	*1,269,126*	*13*	
CDO	-	-	-
Bonds and credit derivatives	-	-	-
Total as at 31/12/2020	**2,449,835**	**74,274**	-
Total as at 31/12/2019	**1,439,856**	**75,253**	-

Reported below are the assets underlying the securitizations originated by the Bank, included in the Banking Book and Trading Book. The securitizations reported above are not subject to full derecognition (own securitizations without derecognition of the underlying assets).

The following tables report the Group's overall exposures in on- and off-balance sheet securitisations broken down by banking and Trading book and by type of securities.

The tables refer to exposures used for prudential supervisory reporting purposes and include securitised exposures that are not recognised for the purpose of capital requirement calculation. In this latter case, capital requirements are calculated having regard to the securitised assets and not to the corresponding exposure.

Tab. 11.2.2 – Total Securitised Exposures by type of Securities(*) (On and Off-Balance sheet)

	Securitisations		Total
	of third parties	own	
1. Balance-sheet exposures	**142,988**	**360,978**	**503,966**
Banking book	**129,348**	**12,122**	**141,471**
CMO	129,348	12,122	141,471
Regulatory Trading book	**13,639**	**348,856**	**362,495**
CMBS	13,639	52,868	66,507
RMBS	-	154,276	154,276
NPL	-	36,782	36,782
Consumer	-	101,608	101,608
Commercial Loan	-	3,322	3,322
2. Off-balance-sheet exposures	-	-	-
Total as at 31/12/2020	**142,988**	**360,978**	**503,966**
Totale as at 31/12/2019	**82,493**	**405,749**	**488,242**

(*) *Asset types are defined in the Glossary.*

Tab. 11.2.3 – Own securitised exposures by type of securities and underlying assets – Banking Book

	Junior	Mezzanine	Senior	Total
ABS	**83,525**	**45,823**	**-**	**129,348**
Commercial Loans	76,565	-	-	76,565
Mortgages	6,959	45,823	-	52,783
Totale as at 31/12/2020	**83,525**	**45,823**	**-**	**129,348**
Totale as at 31/12/2019	**24,313**	**44,655**	**-**	**68,968**

The figures shown in the table above do not take into account the Senior Securities of Siena NPL 2018 SrL Vehicle as their exposures, being guaranteed by the State, end up in the Exposures to central governments and central banks' portfolio.

Tab. 11.2.4 – Third-party securitised exposures by type of securities and underlying assets – Banking Book

	Junior	Mezzanine	Senior	Total
ABS	-	-	**12,122**	**12,122**
Non performing loans	-	-	12,122	12,122
Total as at 31/12/2020	-	-	**12,122**	**12,122**
Total as at 31/12/2019	-	-	**8,898**	**8,898**

Tab. 11.2.5 – Own securitised exposures by type of Securities and underlying assets – Trading Book

	Junior	Mezzanine	Senior	Total
CMBS	-	-	**13,639**	**13,639**
Commercial mortgages	-	-	13,639	13,639
Total as at 31/12/2020	-	-	**13,639**	**13,639**
Total as at 31/12/2019	-	-	**13,525**	**13,525**

Tab. 11.2.6 – Third-party securitised exposures by type of Securities and underlying assets – Trading Book

	Junior	Mezzanine	Senior	Total
Consumer	-	**23,511**	**78,096**	**101,608**
Consumer loans	-	9,483	38,908	48,392
Utility	-	-	2,235	2,235
Auto Loans	-	14,028	32,053	46,081
credit card	-	-	4,900	4,900
Commercial Loans	-	-	**3,322**	**3,322**
Commercial Loans	-	-	3,322	3,322
NPL	-	**1,212**	**35,570**	**36,782**
Non performin loans	-	1,212	34,690	35,902
Residential mortgages	-	-	880	880
RBMS	**9,804**	**60,250**	**84,222**	**154,276**
Residential mortgages	9,804	60,250	84,222	154,276
CMBS	**3,725**	**17,246**	**31,897**	**52,868**
Commercial mortgages	3,725	17,246	31,897	52,868
Total as at 31/12/2020	**13,529**	**102,219**	**233,108**	**348,856**
Total as at 31/12/2019	**46,770**	**125,886**	**224,196**	**396,851**

Tab. 11.2.7 – Total securitised exposures by Banking/Trading and related capital requirements (standard approach)

Type	Exposure	Requirement
Banking Book	2,875,378	45,459
of which SEC ERBA	12,122	1,369
of which SEC IRBA	*2,786,690*	*43,171*
of which SEC SA	*76,565*	*919*
Regulatory Trading Book	362,495	25,099
Total as at 31/12/2020	**3,237,873**	**70,558**
Total as at 31/12/2019	**514,588**	**30,144**

The increase in the exposure amount, compared to 31 Decemebr 2019, is essentially due to two synthetic securitization transactions completed in December 2020, that is "Siena 2020 – FEI transaction" and "Siena 2020 - RegCap-1".

The tables refer to securitised exposures (own and third-party securitisations), broken down by Banking or Trading book subject to the standard approach and related capital requirements. The tables do not include exposures whose requirements are calculated on the basis of their underlying assets. The risk weighting factors provided for by regulations are applied in this latter case and such exposures are included in the regulatory portfolios of Table 5.2.2 Exposures in own and third-party securitisations and re-securitisations are not credit risk mitigated through CRM techniques such as those included in Table 5.5.1 and 5.2.2. The exposures broken down by Banking or Trading book, type of securitisation and weight band are reported in the tables below.

Tab. 11.2.8 – Securitised exposures by risk weight bands – Banking Book

Type	Risk weight band 0-1%	20%	50%	183%	219%	650% 1250%	1250% No Rating	Total
Own Securitisations	-	76,565	-	-	26,405	-	-	102,970
Third-party Securitisations	-	-	4,148	7,975	-	-	-	12,122
Re-securitisation	-	-	-	-	-	-	-	-
Total as at 31/12/2020	**-**	**76,565**	**4,148**	**7,975**	**26,405**	**-**	**-**	**115,092**
Total as at 31/12/2019	**-**	**-**	**8,898**	**44,655**	**24,313**	**-**	**-**	**77,866**

The table above details the securitised exposures by risk weight bands and type of transactions. The amounts shown, in line with prudential regulations, relate to own and third-party securitised exposures included in the banking book. Therefore, they do not include the securitised exposures included in the regulatory trading book, detailed in the following tab. 11.2.10.
Moreover, as far as own securitisations are concerned, in compliance with supervisory regulations, the table does not include securitised exposures:
a) that refer to transactions that are not recognised as securitisations for prudential supervisory purposes, since, among other reasons, they do not entail the actual transfer of credit risk;
b) whose overall risk-weighted value to the same securitisation exceeds the risk-weighted value of underlying securitised assets, calculated as if they had not been securitised (cap test).
Both in the case of a) and b), capital requirements are calculated in relation to securitised assets and not to the corresponding exposures securitised. Moreover, in this case, securitized assets are classified in their original regulatory classes (exposures secured by real estate, etc.) and are therefore excluded from "Securitisations".
The table does not include capital requirements relating to Tranched cover transactions, amounting to 2,733,907 €/th.

Tab. 11.2.9 – Capital requirements of securitised exposures by risk weight bands – Banking Book

Type	Risk weight band 0-1%	20%	50%	183%	219%	650% 1250%	1250% No Rating	Total
Own Securitisations	-	919	-		9,466	-	-	10,384
Third-party Securitisations	-	-	348	1,021	-	-	-	1,369
Re-securitisation	-	-	-	-	-	-	-	-
Total as at 31/12/2020	**-**	**919**	**348**	**1,021**	**9,466**	**-**	**-**	**11,753**
Total as at 31/12/2019	**-**	**-**	**712**	**6,537**	**4,260**	**-**	**-**	**11,509**

The table does not include capital requirements relating to Tranched cover transactions, amounting to 33,707 €/th.

Tab. 11.2.10 – Securitised exposures by risk weight bands – Trading Book

	Risk weight band									
Type	0%	10%	12% 18%	20% 35%	40% 75%	80% 100%	150% 350%	650% 1250%	1250% No Rating	Total
Own Securitisations	-	-	-	13,639	-	-	-	-	-	13,639
Third-party Securitisations	-	50,241	9,994	117,337	58,863	63,332	42,674	6,414	-	348,856
Re-securitisation	-	-	-	-	-	-	-	-	-	-
Total as at 31/12/2020	**-**	**50,241**	**9,994**	**130,977**	**58,863**	**63,332**	**42,674**	**6,414**	**-**	**362,495**
Total as at 31/12/2019	**13,140**	**53,944**	**85,586**	**108,887**	**64,106**	**68,496**	**12,543**	**3,674**	**-**	**410,376**

The table above details the exposures securitised by risk weight bands and by type of transactions. The amounts shown relate to own and third-party securitised exposures included in the regulatory trading book.

Tab. 11.2.11 – Capital requirements of securitised exposures by risk weight bands – Trading Book

	Risk weight band									
Type	0%	10%	12% 18%	20% 35%	40% 75%	80% 100%	150% 350%	650% 1250%	1250% No Rating	Total
Own Securitisations	-	-	-	364	-	-	-	-	-	364
Third-party Securitisations	-	402	120	2,465	2,780	5,057	9,012	4,899	-	24,734
Re-securitisation	-	-	-	-	-	-	-	-	-	-
Total as at 31/12/2020	**-**	**402**	**120**	**2,829**	**2,780**	**5,057**	**9,012**	**4,899**	**-**	**25,099**
Total as at 31/12/2019	**-**	**432**	**1,016**	**1,804**	**2,581**	**5,426**	**2,742**	**3,674**	**-**	**17,675**

12. Operational Risk

12.1 Operational Risk: general disclosure

The Montepaschi Group has implemented an integrated risk management system on the basis of a governance model which involves all the companies of the Montepaschi Group included in the scope of application. The approach defines the standards, methods and instruments that make it possible to measure risk exposure and the effects of mitigation by business area.

The Montepaschi Group was authorized by the Bank of Italy on 12 June 2008 to use the internal advanced measurement approach (AMA) for the calculation of capital requirements for operational risks. The advanced model officially started operating on 1 January 2008. The first consolidated regulatory reporting on the basis of the model was prepared in relation to the results as at 30 June 2008.

All the domestic banking and financial components are incorporated in the scope of advanced measurement approach (AMA). For remaining components and foreign companies, the foundation model has been adopted.

Today's internal model coverage in terms of total banking income exceeds 95%.

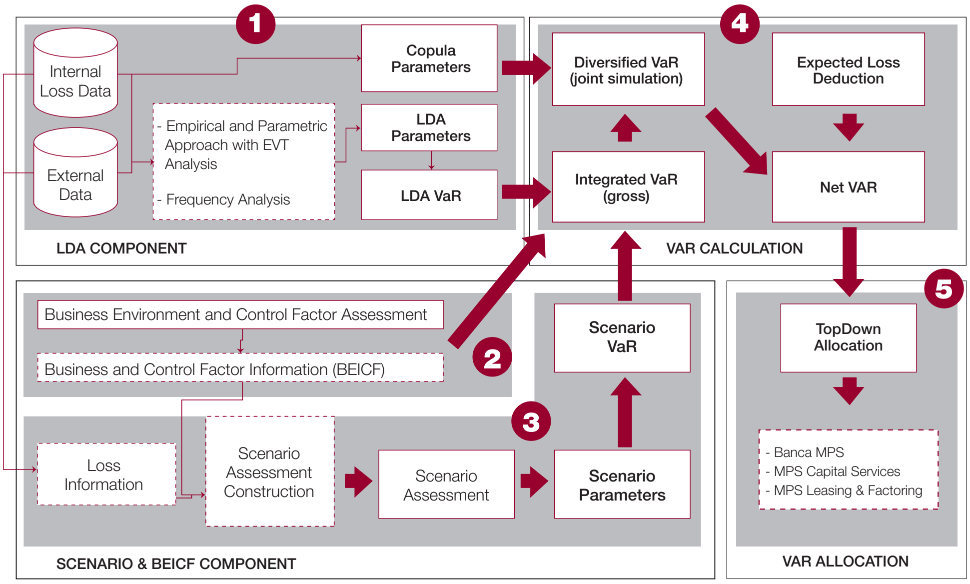
The advanced approach adopted by the Montepaschi Group is designed so as to homogeneously combine all the main qualitative and quantitative information (or data) sources (mixed LDA-Scenario model).

The quantitative *Loss Distribution Approach* component is based on the statistical collection, analysis and modelling of internal and external historical loss data (Italian Database of Operational Losses, DIPO). The model includes calculation in relation to the 7 categories of events established by Basel 2 used as risk classes, with the adoption of *Extreme Value Theory* techniques. The estimated frequency of occurrence is based exclusively on internal data.

The qualitative component focuses on the evaluation of the risk profile of each unit and is based on the identification of relevant scenarios. In this framework, the companies are involved in process and risk identification, risk evaluation by process managers, identification of possible mitigation plans, discussion (in scenario-sharing sessions) of priorities and technical-economic feasibility of mitigation actions with the H.O. units.

Despite having insurance coverage to mitigate operational risk, the MPS Group does not use insurance for the mitigation of risk in the calculation of capital requirements since this has not yet been authorized by the supervisor.

As of 30 June 2017, the Advanced Measurement Model was changed to increase the historical depth of internal loss data from 5 to 10 years and to introduce the scaling of external data in order to discourage unexpected requirement fluctuations.



Finally, the percentage breakdown of events and operational losses recorded in 2020 is reported, divided into the following risk classes:

- Internal fraud: losses arising from unauthorised activities, fraud, embezzlement or violation of laws, regulations or corporate directives that involve at least one internal resource of the Group;
- External fraud: losses due to fraud, embezzlement or violation of laws by subjects external to the Group;
- Employment relationships and Occupational safety: losses arising from actions in breach of employment, occupational health and safety laws and agreements, payment of compensation for personal injury or episodes of discrimination or failure to apply equal treatment;
- Customers, products and operating practices: losses arising from non-fulfilment of professional obligations with customers or from the nature and characteristics of the product or service provided;
- Property damage: losses arising from external events, including natural disasters, acts of terrorism or vandalism;
- Business disruptions and system failures: losses due to business disruption or system failures or interruption;
- Process management, execution and delivery: losses arising from operational and process management shortfalls, as well from transactions with business counterparties, vendors and suppliers.

As at 31 December 2020 the number of operational risk events and the losses were up compared to December 2019. This increase in the number is primarily due to the redemptions in favour of the customers, tied to reporting activities to third parties regarding diamond operations.

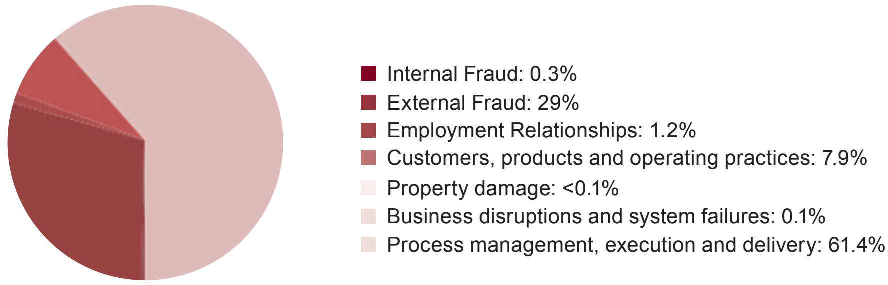
The type of events with the greatest P&L

impact refer to the violation of professional obligations towards customers (category "Customers, products and operating practices": approximately 82% of the total) and to shortcomings in the completion of operations or process management (category "Execution, delivery and process management": 14% of the total).

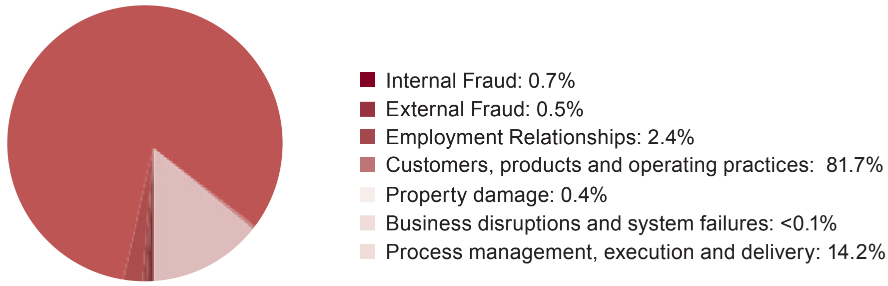
As far as the violation of professional obligations towards customers is concerned, the events mainly refer to disputes over the application of compound interest rates and to disputes pending in relation to the share capital increases made in the previous years.

For further information, please refer to the **Notes to the Consolidated Financial Statements** - *Part E – Information on risks and hedging policies – Section 2 – Risk of prudential consolidation, 1.5 – Operational Risks*.

Events breakdown
Montepaschi Group - 31 12 2020

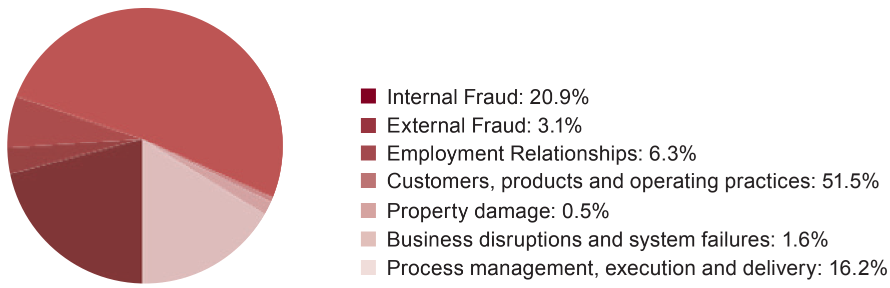


Losses breakdown
Montepaschi Group - 31 12 2020



The graph below shows the breakdown of regulatory requirements by class of risk:

Regulatory Capital Requirements
Montepaschi Group - 31 12 2020



The Regulatory Requirement as at 31 December 2020was up compared to December 2019, also due to the increase in the recorded operating losses. The breakdown of operational losses clearly differs from the breakdown of capital in that the latter is calculated using a 10-year time series and the incidence of the unexpected loss component prevails.

Quantitative Disclosure

Tab. 12 – Capital requirements for Operational Risk

Requirements by approach	Dec-2020	Dec-2019
Foundation approach	6,738	7,743
Standardised approach	-	-
Advanced Measurement approach	918,513	817,877
Total Operational Risk	**925,251**	**825,620**

Statement of the Chief Executive Officer pursuant to art. 435, e) and f) and Art. 431, paragraph 3, paragraph 1 of Regulation (EU) no. 575/2013 of 26-06-2013

By mandate of the Board of Directors of Banca Monte dei Paschi di Siena S.p.A and pursuant to art. 435, e) and f) and Art. 431, paragraph 3, paragraph 1 of Regulation (EU) no. 575/2013 of 26-06-2013, the Chief Executive Officer, Guido Bastianini, declares that:

a) the risk management systems, including liquidity risk, put in place by the Parent Company and described in the document "Pillar 3 Disclosure: update as at 31 December 2020" are in line with the Banking institution's profile and strategy;

b) the section, "Executive Summary", of the same document provides a summary description of the Montepaschi Group's overall risk profile, including liquidity risk, in relation to the company strategy adopted;

c) the process of preparing and auditing the Pillar 3 public disclosure complies with the internal control procedures and processes approved by the Board of Directors.

Siena, 25 February 2021

Guido Bastianini

Chief Executive Officer

Declaration of the Financial Reporting Officer

Pursuant to para. 2, article 154-bis of the Consolidated Law on Banking, the Financial Reporting Officer, Mr. Nicola Massimo Clarelli, declares that the accounting information contained in this document corresponds to the underlying documentary evidence and accounting records.

Siena, 25 February 2021

Nicola Massimo Clarelli

Financial Reporting Officer

List of Tables

Appendix 1: Summary of Information published in line with CRR requirements

CRR Article		*Reference to the present document Pillar 3*
Art. 431 - *Scope of disclosure requirements*	*par. 1; 2; 3; 4*	**Introduction**
Art. 432 - *Non-material, proprietary or confidential information*		**Introduction**
Art. 433 - *Frequency of disclosure*		**Introduction**
Art. 434 - *Means of disclosures*		**Introduction**
Art. 435 - *Risk management objectives and policies*	*Par.1*	**Chapter 1** - Risk management objectives and policies
	Par. 2	Introduction: reference to the link: https://www.gruppomps.it/en/corporate-governance/corporate-governance-report.html
Art. 436 - *Scope of application*	*Par.a; b; c; d; e*	**Chapter 2** - Scope of application
Art. 437- *Own funds*	*Par.a*	**Chapter 3** - Own Funds - Tab. 3.2; Tab. 3.3
	Par. b	**Chapter 3** - Own Funds - Features of CET1, AT1 and T2 instruments
	Par. c	**Chapter 3** - main features of instruments
	Par. d	**Chapter 3** - Own Funds - Tab. 3.1.1/3.1.2/3.1.3/3.1.4
	Par. e/ f	**Chapter 3** - Own Funds
Art. 438- *Capital requirement*	*Par. a*	**Chapter 4** - Capital requirements, liquidity ratios and leverage
	Par. b	**Executive Summary**; **Chapter 4** - Capital requirements, liquidity ratios and leverage
	Par. c; d	**Chapter 4** - Capital requirements, liquidity ratios and leverage
	Par. e; f	**Chapter 4** - Capital requirements, liquidity ratios and leverage (Tab.4)
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Art. 439- *Exposure to counterparty credit risk*	*Par. a; b; c; d; e; f; g; h; i*	**Chapter 6** - Counterparty risk; Reference to the section E of Notes - Financial Statement - Informazioni sui rischi e sulle relative politiche di copertura Sezione 1.3.1 Strumenti Derivati
Art. 440 - *Capital buffers*	*Par. a;*	**Chapter 4** - Section: minimum capital requirements (Tab. 4.8.1 - 4.8.3.4)
	Par. b;	**Executive Summary**; Chapter 4 - Section countercyclical capital buffer : (Tab. 4.8.1)
Art. 441- *Indicators of global systemic importance*		With an overall exposure valid for the purpose of calculating the financial leverage of less than €200 billion as at 31.12.2020, BMPS is not included in the list of banks subject to publication of systemic importance indicators as defined by the EBA.
Art. 442 - *Credit risk adjustments*	*Par. a; b; c*	**Chapter 5.4** - regulatory overview Tab. 5.4.11
	Par. d; e; f; g; h; i;	Reference to the section E and A of Notes - Financial Statement
	par. e	**Chapter 5.3** - Credit risk: AIRB approach -Tab. 5.3.1 – IRB Approach: Summary of Exposures, RWAs, expected and actual losses
Art. 443 - *Unencumbered assets*		**Chapter 10** - Encumbered and unencumbered assets
Art. 444 - *Use of ECAIs*	*Par.a; b; c; d*	**Chapter 5.2** - Credit risk: Standard approach
	par. e	**Chapter 5.2** - Credit risk: Standard approach (Tab. 5.2.1; Tab. 5.2:2)
Art. 445 - *Exposure to market risk*		**Chapter 4** - Capital requirements, liquidity ratios and leverage (Tab.4.4)

Appendix 1: Summary of Information published in line with CRR requirements

CRR Article		*Reference to the present document Pillar 3*
Art. 446 - *Operational risk*		**Chapter 12** - Operational risk Reference to the section E of Notes - Financial Statement
Art. 447 - Exposures in equities not included in the trading book		**Chapter 9** - Exposures in equities not included in the Trading book
Art. 448 - *Exposure to interest rate risk on positions not included in the trading book"*		**Chapter 8** - Exposure to interest rate risk on positions not included in the Trading book **Reference** to 1.2.2 of the section E of Notes - Financial Statement
Art. 449 - *Exposure to securitisation positions*	*par. a; b; d; e; f; g ; i;*	**Chapter 11** - Exposures to securitisation transactions
	par. c	**Chapter 11** - Section 11.2 - Quantitative disclosure Tab.11.2.1
	par. h; k; l	**Chapter 11** - Section "Methods for calculating risk weighted exposures"
	par. j	**Chapter 11** - Section "Accounting policies"
	par. m	**Chapter 11** - Section 11.2 - Quantitative disclosure
	par. n	**Chapter 11** - Section 11.2 - Quantitative disclosure - Tab. 11.2.3/ 11.2.4/11.2.5/11.2.6
	par.o	**Chapter 11** - Section 11.2 - Quantitative disclosure - Tab. 11.2.9/11.2.10/11.2.11
	par. p	**Chapter 11** - Section 11.2 - Quantitative disclosure - Tab. 11.2.1
	par. q	**Chapter 11** - Section 11.2 - Quantitative disclosure - Tab. 11.2.5
	par. r	**Chapter 11** - Section "Covered Bond Transactions"
Art. 450 -*Remuneration Policy*		Introduction -reference to BMPS websitehttps://www.gruppomps.it/en/corporate-governance/remuneration.html
Art. 451 - *Leverage*		**Chapter 4** - Capital requirements, liquidity ratios and leverage (Tab. 4.10.1/4.10.2/4.10/3)
Art. 452 - *Use of the IRB Approach to credit risk*	*Par. a; b; c;*	**Chapter 5.3** - Credit risk: use of the AIRB approach
	Par. c;	**Chapter 5.5** - Credit risk: use of risk mitigation techniques
	Par. d; e;	**Chapter 5.3** -Tab 5.3.1; from Tab.5.3.2 till Tab 5.3.10
	Par. g	**Chapter 5.4** - Tab. 5.4.11
	Par. h	**Chapter 5.3** - Section "Comparison between expected loss and actual loss"; Tab. 5.3.13
	Par. i	**Chapter 5.3** - Section "Comparison between expected loss and actual loss"; Backte-sting;
	Par. j	**Chapter 5.3** - Sezion IRB approach Exposures – Geographic Segmentation
Art. 453 - *Use of credit risk mitigation techniques*		**Chapter 5.5** - Credit risk: use of risk mitigation techniques (Tab.5.5.1; 5.5.2)
Art. 454 - *Use of the Advanced Measurement Approaches to operational risk*		**Chapter 12** - Operational risk Reference to the Section E of Notes - Financial State-ments
Art. 455 - *Use of Internal Market Risk Models*		**Introduction**: It should be noted that the Group does not use the advanced methods for market risk and does not provide information in this regard.

Appendix 2 - Details of Information provided in compliance with EBA Guidelines GL 2016/11

Guidelines on disclosure requirements EBA/GL/2016/11		*Reference to the present document Pillar 3*	
EU OVA	Institution risk management approach	1. Risk management objectives and policies	qualitative information
EU OV1	Overview of RWAs	4. Capital requirements, liquidity ratios and leverage	tab.4b
EU LI1	Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories	2. Scope of application	tab.2.2
EU LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements	N/a	
EU LI3	Outline of the differences in the scopes of consolidation (entity by entity)	2. Scope of application	tab.2.1
EU LIA	Explanations of differences between accounting and regulatory exposure amounts	N/a	
EU INS1	Non-deducted participations in insurance undertakings	4. Capital requirements, liquidity ratios and leverage	tab 4.7
EU CRA	General qualitative information about credit risk	5.1 Credit Risk: general disclosure	qualitative information
EU CRB-B	Total and average net amount of exposures	5.1 Credit Risk: general disclosure	tab 5.1.3
EU CRB-C	Geographical breakdown of exposures	5.1 Credit Risk: general disclosure	tab 5.1.4
EU CRB-D	Concentration of exposures by industry or counterparty types	5.4 Credit Risk: credit quality	Tab. 5.4.6 (template 6)
EU CRB-E	Maturity of exposures	5.1 Credit Risk: general disclosure	tab 5.1.5
EU CRB-A	Additional disclosure related to the credit quality of assets	5.4 Credit Risk: credit quality	qualitative information
EU CR1-A	Credit quality of exposures by exposure class and instrument	5.4 Credit Risk: credit quality	tab 5.4.1
EU CR1-B	Credit quality of exposures by industry or counterparty types	5.4 Credit Risk: credit quality	Tab. 5.4.6
EU CR1-C	Credit quality of exposures by geography	5.4 Credit Risk: credit quality	*
EU CR1-D	Ageing of past-due exposures	5.4 Credit Risk: credit quality	tab 5.4.4
EU CR1-E	Non-performing and forborne exposures	5.4 Credit Risk: credit quality	tab 5.4.2
EU CR2-A	EU CR2-A – Changes in the stock of general and specific credit risk adjustments	5.4 Credit Risk: credit quality	pag 409-410 table A.1.8 and A.1.9 in the Consolidated Financial Statement
EU CR2-B	EU CR2-B – Changes in the stock of defaulted and impaired loans and debt securities	5.4 Credit Risk: credit quality	tab. 5.4.8
EU CRD	Qualitative disclosure requirements on institutions' use of external credit ratings under the standardised approach for credit risk	5.2 Credit Risk: Standard approach	qualitative information
CR3	CRM Techniques – Overview	5.5 Credit Risk: use of risk mitigation techniques	Tab 5.5.3
EU CRC	Qualitative disclosure requirements related to credit risk mitigation techniques	5.5 Credit Risk: use of risk mitigation techniques	qualitative information

Appendix 2 - Details of Information provided in compliance with EBA Guidelines GL 2016/11

Guidelines on disclosure requirements EBA/GL/2016/11		*Reference to the present document Pillar 3*	
EU CR4	Standardised approach – Credit risk exposure and CRM effects	5.5 Credit Risk: use of risk mitigation techniques	tab. 5.5.4
EU CR5	Standardised approach	5.2 Credit Risk: Standard approach	tab 5.2.3
EU CRE	Qualitative disclosure requirements related to IRB models	5.3 Credit Risk: use of the AIRB approach	qualitative information
EU CR6	IRB approach – Credit risk exposures by exposure class and PD range	5.3 Credit Risk: use of the AIRB approach	tab.5.3.4-tab.5.3.10
EU CR7	IRB approach – Effect on the RWAs of credit derivatives used as CRM techniques	n.s.	
EU CR8	RWA flow statements of credit risk exposures under the IRB approach	4. Capital requirements, liquidity ratios and leverage	tab 4.6
EU CR9	IRB approach – Backtesting of PD per exposure class	5.3 Credit Risk: use of the AIRB approach	Par. 5.3 pag. 138
EU CR10	IRB (specialised lending and equities)	5.3 Credit Risk: use of the AIRB approach	tab 5.3.3
EU CCRA	Qualitative disclosure requirements related to counterparty credit risk	6.1 Counterparty Risk: general disclosure	qualitative information
EU CCR1	Analysis of CCR exposure by approach	6.1 Counterparty Risk: general disclosure	tab 6.2.1
EU CCR2	CVA capital charge	6.1 Counterparty Risk: general disclosure	tab 6.2.2
EU CCR3	Standardised approach – CCR exposures by regulatory portfolio and risk	6.1 Counterparty Risk: general disclosure	tab 6.2.3
EU CCR4	IRB approach – CCR exposures by portfolio and PD scale	6.1 Counterparty Risk: general disclosure	Tab 6.2.4.1-6.2.4.5
EU CCR5-A	Impact of netting and collateral held on exposure values	6.1 Counterparty Risk: general disclosure	tab 6.2.5
EU CCR5-B	Composition of collateral for exposures to CCR	6.1 Counterparty Risk: general disclosure	tab 6.2.7
EU CCR6	Credit derivatives exposures	6.1 Counterparty Risk: general disclosure	tab 6.2.8
EU CCR7	RWA flow statements of CCR exposures under the IMM	Na	
EU CCR8	Exposures to CCPs	6.1 Counterparty Risk: general disclosure	tab 6.2.9
EU MRA	Qualitative disclosure requirements related to market risk	7.1 Trading Book Market Risk: general disclosure	qualitative information
EU MRB	Qualitative disclosure requirements for institutions using the Internal Models Approach (IMA)	Na	
EU MR1	Market risk under the standardised approach	7.1 Trading Book Market Risk: general disclosure	tab. 7
EU MR2-A	Market risk under the IMA	Na	
EU MR2-B	RWA flow statements of market risk exposures under the IMA	Na	
EU MR3	IMA values for trading portfolios	Na	
EU MR4	Comparison of VaR estimates with gains/losses	Na	

* *as of* 31/12/2020 the table has not been reported as the share of cross-border exposures were lower than 10%

Na Not applicable as Montepaschi Group adopts the standardized approach to calculate capital requirements for market risk
n.s. Not significant as Montepaschi Group does not have credit exposures hedged with credit derivatives, which are valid for the purpose of risk mitigation techniques
N/a Not available

Appendix 3 - Details of Information provided in compliance with EBA Guidelines GL 2020/01

Orientamenti sulle informative uniformi delle disposizioni transitorie in materia di IFRS 9 EBA/GL/2020/12		*Reference to the present document Pillar 3*
EU IFRS9 - FL	*Template IFRS 9/Article 468-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR*	Chapter 4 - Capital requirements, liquidity ratios and leverage

Appendix 4 - Details of Information provided in compliance with EBA Guidelines GL 2018/10

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Template 1	*Credt quality of forborne exposures*	5.4 - Credit Risk: credit quality	Tab. 5.4.2
Template 2	*Quality of forbearance*	5.4 - Credit Risk: credit quality	Tab. 5.4.3
Template 3	*Credit quality of performing and non-performing exposures by past due days*	5.4 - Credit Risk: credit quality	Tab. 5.4.4
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Template 5	*Quality of NPEs by geography*	5.4 - Credit Risk: credit quality	*
Template 6	*Credit quality of loans and advances by industry*	5.4 - Credit Risk: credit quality	Tab. 5.4.6
Template 7	*Collateral valuation – loans and advances*	5.4 - Credit Risk: credit quality	Tab. 5.4.7
Template 8	*Changes in the stock of non-performing loans and advances*	5.4 - Credit Risk: credit quality	Tab. 5.4.8
Template 9	*Collateral obtained by taking possession and execution processes*	5.4 - Credit Risk: credit quality	Tab. 5.4.9
Template 10	*Collateral obtained by taking possession and execution processes – vintage breakdown*	5.4 - Credit Risk: credit quality	Tab. 5.4.10

** as of 31/12/2020 the table has not been reported as the share of cross-border exposures were lower than 10%*

Appendix 5 - Details of Information provided in compliance with EBA Guidelines GL 2017/01

Information on the LCR on the basis of the EBA Guidelines on liquidity coverage ratio disclosure, to supplement the liquidity risk management disclosure pursuant to article 435 of EU regulation no. 575/2013 (EBA/GL/2017/01).		*Reference to the present document Pillar 3*
EU LIQ1	*Qualitative and quantitative information on the LCR*	Chapter 4 - Capital requirements, liquidity ratios and leverage

Appendix 6 - Details of Information provided in compliance with EBA Guidelines GL 2020/07

Guidelines on disclosure requirements EBA/GL/2020/07		*Reference to the present document Pillar 3*
Template 1	*Information on loans and advances subject to legislative and non-legislative moratoria*	Credit Risk: credit quality Tab. 5.4.12
Template 2	*Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria*	Credit Risk: credit quality Tab. 5.4.13
Template 3	*Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis*	Credit Risk: credit quality Tab. 5.4.14

Glossary

ABS (Asset Backed Securities): Financial Securities whose coupon yield and redemption are guaranteed by a pool of assets (collateral) of the issuer (usually a Special Purpose Vehicle), exclusively intended to ensure satisfaction of the rights attached to said financial securities. Typically, thy are broken down into RMBS and CMBS.

Amortised Cost (AC): Differs from "cost" in that it provides for the progressive amortisation of the differential between the book value and nominal value of an asset or liability on the basis of the effective rate of return.

AIRB (Advanced Internal Rating Based): advanced internal models used to calculate capital requirements for credit and counterparty risk within the Basel 2 and Basel 3international framework. They differ from the FIRB models since with the AIRB approach, the banks uses its own internal estimates for all inputs. See also PD, LGD, EAD.

ALM (Asset & Liability Management): the set of risk management models and techniques applied to the Banking Book for the purpose of measuring interest rate risk and liquidity risk.

See also Banking Book, Interest Rate Sensitivity, Shift Sensitivity, Economic Value Approach.

AMA (Advanced Measurement Approach): advanced internal models used to calculate capital requirements for operational risk within the Basel 2 and Basel 3 international framework. The approach involves the measurement of capital requirements by the bank through calculation models based on operational loss data and other valuation elements the bank collects and processes.

AT1 (Additional Tier 1): Additional Tier 1 Capital consists of equity instruments other than ordinary shares (calculated in CET1) that meet the conditions for inclusion in Tier 1 capital net of deductions of class 1 items. The latter mainly relate to instruments held in financial entities with significant investments and not to cross-shareholdings.

Backtesting: Retrospective analyses performed to verify the reliability of the measurement of risk sources associated with different asset portfolios.

Banking Book: in accordance with International best practices, the term "banking book" refers to all of the non-trading operations of the Bank in relation to the transformation of maturities with respect to balance-sheet assets and liabilities, Treasury, foreign branches and hedging derivatives. The interest rate, liquidity and forex risk of the Banking Book are typically measured trough Asset & Liability Management (ALM) models. See Regulatory Banking Book.

Basel 1: the regulations relating to the application of Minimum Capital Requirements issued by the Basel Committee in 1988.

Basel 2: the regulations relating to the application of the New Capital Accord issued by the Basel Committee in 2006.

Basel 3: a set of reforms that has been introduced by the Basel Committee as of 2010 to strengthen regulations concerning capital and liquidity and thereby increase the resilience of the banking sector. The reforms are aimed at increasing the banking system's capacity to absorb shocks arising from financial and economic stress, whatever their origin, and reduce the risk of contagion from the financial sector to the real economy. Implemented within the Community by the "CRR", Regulation (EU) No 575/2013 and "CRD IV", Directive 2013/36/EU.

BCU: Business Control Unit. Local, first-level risk management functions, located within the areas / business units (BUs).

Best practices: It generally identifies conduct in line with state-of-art skills and techniques in a given technical/professional area

BP (basis point): one hundredth of a percentage point, ie. 1bp = 0.01% = 0.0001.

Capital convervation buffer: It is aimed at conserving the minimum level of regulatory capital during difficult periods in the market, through the allocation of high quality capital in periods in which there are no market tensions. All banks have to hold a capital conservation buffer of the highest quality of their capital (CET1 capital) equal to 2.5 % of a bank's total risk exposure.

Capital Requirements: the sum of capital, calculated according to supervisory regulations, destined to cover the single risks of the First Pillar in compliance with the supervisory framework.

Cash Flow Hedge: Coverage against exposure to variability in cash flows associated with a particular risk

Overall Internal Capital: (or Overall Absorbed Capital) is the minimum amount of capital resources required to cover economic losses resulting from unforeseen events caused by the simultaneous exposure to different types of risk. In addition to Pillar 1 regulatory requirements for Credit and Counterparty Risk (which already include those relating to Issuer Risk in the Banking Book, Equity Investment Risk and Real Estate Risk) and for Operational Risk, internal operational models relating to Market Risk, Interest Rate Risk in the Banking Book, Concentration Risk and Strategic Risk are also added. Overall Internal Capital is calculated without considering inter-risk diversification and includes the input from each individual risk.

CCF: Credit Conversion Factor.

CDS (Credit Default Swap): An agreement whereby, upon payment of a premium, one party transfers to another party the credit risk attached to a loan or security, in the event of a loan default by the debtor.

CDO (Collateralized Debt Obligation): Securities issued based on differentiated risk classes with various tranches following the securitisation of a portfolio of debt instruments embedding a credit risk. Typically characterised by financial leverage.

ABS CDO: CDOs whose underlying asset portfolio primarily consists of Asset-Backed Securities.

Combined buffer requirement: It means the total Common Equity Tier 1 capital required to meet the requirement for the capital conservation buffer extended by the following, as applicable:

(a) an institution-specific countercyclical capital buffer;
(b) a G-SII buffer;
(c) an O-SII buffer;
(d) a systemic risk buffer;

Corporate customers: customer segment consisting of medium- and large-sized companies (mid corporate, large corporate).

Countercyclical capital buffer: It is aimed at protecting the banking sector in phases of excessive growth in loans. The buffer provides for the accumulation of CET1 capital during phases of rapid growth in the credit cycle, which can then be used to absorb losses in the downward phase of the cycle.

Retail customers: customer segment primarily consisting of consumers, professionals, shop-keepers and artisans.

CMBS: Commercial Mortgage Backed Securities.

Prudential Ratios: Regulatory ratios which relate different types of capital to risk-weighted assets (RWAs). *See also* CET1 capital ratio, Tier 1 Capital Ratio, Total Capital Ratio.

Common Equity Tier 1 (CET1) Capital Ratio: the ratio between CET1 and total RWA.

Confidence level: level of probability linked to a risk measurements (e.g. VaR).

Counterparty Risk: Counterparty risk is the risk that the counterparty in a specific financial transaction is in default prior to settlement. Counterparty Risk is associated with certain, specifically-identified types of transactions, which: 1) generate an exposure that is equal to their positive fair value; 2) have a market value which evolves over time depending on underlying market variables; 3) generate an exchange of payments or an exchange of financial instruments or goods against payment.

The categories of transactions subject to counterparty risk are:

- credit and financial derivative instruments traded Over the Counter (OTC);
- Securities Financing Transactions (SFT);
- Long Settlement Transactions (LST).

Covered bond: Special bank bond that, in addition to the guarantee of the issuing bank, is also backed by a portfolio of mortgage loans or ther high-quality loans sold to a special purpose vehicle.

CRD IV (Capital Requirements Directive IV): Directive 2013/36/EU of the European Parliament and of the Council of the 26 June 2013, on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

CRR (Capital Requirements Regulation): Regulation (EU) No 575/2013 of the European Parliament and of the Council of the 26 June 2013, on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

Credit derivatives: Derivative contracts for the transfer of credit risks. These products allow investors to perform arbitrage and/or hedging on the credit market, , to acquire credit exposures of varying maturities and intensities, to modify the risk profile of a portfolio and to separate credit risks from other market risks.

Credit Risk: the risk that a debtor may default on his obligations, either at maturity or subsequently. Credit Risk is associated with an unexpected change in creditworthiness of a responsable party – towards whom there is an exposure – which generates a corresponding unexpected change in the value of the credit position.

CRM (Credit Risk Mitigation): set of credit risk mitigation techniques recognised for supervisory purposes (e.g., compensation of accounts in balance sheet, personal guarantees, credit derivatives, financial collaterals), for which the following eligibility requirements apply - legal, economic and organisational - for the purpose of reducing risk.

Cure Rate: the rate with which impaired loan positions return to performing status.

Default, credit exposures: these include nonperforming loans, watchlist loans, restructured loans and past-due.

Default status: state of insolvency or delinquency of a debtor. Declared inability to honour one's debt and/or make the relevant interest payments.

Deferred Tax Assets (DTA): the amounts of income taxes payable in future periods in respect of taxable temporary differences between the carrying amount of an asset or liability and its tax base.

Deferred Tax Assets (DTA) that rely on future profitability: deferred tax assets, the future value of which may be realised in the event the institution generates taxable profit in the future. They are divided between DTAs arising from temporary differences and DTAs not arising from temporary differences (eg. Tax losses).

Delta EL: *see* Surplus of expected loss value over the value of net provisions.

DIPO: Database Italiano Perdite Operative. The Italian Database of Operational Losses. Database used for operational risk.

Diversification: benefit arising from the simultaneous holding of financial instruments which depend upon risk factors not perfectly matched. In the case of VaR, this corresponds to the correlation effect among risk factors on the overall VaR value.

EAD: *see* Exposure-at-Default.

ECA: Export Credit Agency.

ECAI (External Credit Assessment Institution): External Credit Assessment Institution (Rating Agencies).

Economic Capital: the capital needed to deal with any loss in value generated by unexpected changes in conditions, internal or external, as a consequence of risk. It is calculated on the basis of risk measurement models developed by the Risk Management area. In general, it is obtained on the basis of a consistent transformation in terms of holding period and confidence interval of VaR measurements calculated for individual risk factors and appropriately diversified. The confidence interval is a function of the bank's objective rating. The Economic Capital is the internal estimation of capital needed to deal with risk that is the necessary operational equivalent of Capital Requirements (Regulatory Capital).

Economic Value approach: measure of the changes in the Banking Book overall net current value (defined as the difference between the current value of assets, the current value of liabilities and the value of hedging derivatives) in the presence of different alternative interest rate scenarios. The focus is placed on the changes in the net current economic value of the Bank and takes account of all maturities of assets, liabilities and off-balance-sheet items existing at the time of each valuation. It is typically measured with shift sensitivity assumptions.

See also AL M, Banking Book, Interest Rate Sensitivity, Shift Sensitivity.

Expected Loss (EL): the total amount of net losses which, on average, the bank can expect (estimate) to incur in the 12 month period following the date of reference on the total amount of performing loans in the portfolio upon measurement. Estimated ex-ante as the "cost of doing business", it ought to be directly included, in terms of spread, in the pricing conditions applied to the customer and covered using an appropriate accounting provision policy. It is defined as the product of the probability of default (PD) and loss given default (LGD):

EL = PD x LGD

The Expected Loss amount is defined as the product between EL and Exposure at Default (EAD):

EL amount = EL x EAD

Exposure at Default (EAD): estimated future value of an exposure upon default of a client. EAD, for the purposes of calculating capital requirements, includes both the cash exposure and the expected usage of the endorsment exposure.

Value required in the advanced model for credit risk measurement (AIRB - "Advanced Internal Rating Base Approach") as set out by Basel framework.

Fair Value (FV): the amount at which an asset could be bought or sold or a liability incurred or settled, in an arm's length transaction between willing, independent parties.

FIRB (Foundation Internal Rating Based): the internal models used to calculate capital requirements for credit and counterparty risk within the international Basel 2 Accord. It differs from the AIR B approaches because, in this case, only the PD parameters are estimated by the bank.

FVTOCI: Method of recognition of changes in the fair value of financial assets through other comprehensive income (therefore in shareholders' equity) and not through profit or loss

FVTPL: Method of recognition of changes in the fair value of financial assets through profit or loss

Grandfathering: Provision to safeguard capital adequacy, whereby an old rule continues to apply to some existing situations while a new rule will apply to all future situations.

G-SII buffer: Mandatory capital buffer for banks that are identified by the relevant authority as globally systemically important institutions (G-SIIs) to compensate for the higher risk they pose to the global financial system and for potential impact of their failure.

HFT (Held For Trading): IAS category used to classify trading assets and liabilities.

Holding period (hp): forward-looking length of time for which a position is held.

IAS/IFRS: the International Accounting Standards are issued by the International Accounting Standards Board (IASB). The standards issued after July 2002 are called IFRS (International Financial Reporting Standards).

ICAAP (Internal Capital Adequacy Assessment Process): it is the "Second Pillar" of Basel framework. Banks are required to adopt processes and instruments for determining the level of internal capital needed to cover any type of risk, including risks different from those covered by the total capital requirement ("First Pillar"), when assessing current and future exposure, taking into account business strategies and developments in the economic and business environment.

ILAAP (Internal Liquidity Adequacy Assessment Process): is the internal process for assessing the overall liquidity profile of an institution. The equivalent ICAAP for liquidity risk within SREP.

IMA (Internal Models Approach): method of VaR internal models for the calculation of capital requirements for market risk.

Impairment: when referred to a financial asset, a situation of impairment is identified when the book value of an asset exceeds its estimated recoverable amount.

Risk Adjusted Indicators: see Risk Adjusted Performance Measurement.

Interest Rate Sensitivity (Economic Value approach): measurement of the impact an unexpected shift (parallel or not) in the yield curves by maturity generates on the bank's economic value. It is typically used to measure the interest rate risk of the Banking Book within the Asset & Liability Management (ALM) systems. The value is obtained from calculating the variation in the current value of the real and notional cash flows of sheet assets, liabilities and off-balance items existing at a certain date when there is a variation in the yield curve (eg. +25 bp) with respect to the values of the baseline.

Investment grade: issuers or issues with a rating between AAA and BBB-.

Issuer Risk: connected to the issuer's official rating, this is the risk of decreasing portfolio value due to the unfavourable change in the issuer's credit standing up to the extreme case of default, in the buying and selling of plain vanilla or credit structured bonds, ie. purchase/selling of protection through credit derivatives.

Junior tranche: in a securitisation transaction it is the lowest-ranking tranche of the securities issued (Equity tranche), being the fi rst to bear losses that may occur in the course of the recovery of the underlying assets.

LCR (Liquidity Coverage Ratio): Liquidity regulatory ratio. It aims to strengthen the short-term resilience of the liquidity profile of the bank.

LDA (Loss Distribution Approach): model used to assess exposure to operational risk. It makes it possible to estimate the amount of expected and unexpected loss for any event/loss combination and any business line.

Leverage Ratio: indicator given by the ratio between Tier 1 and total assets introduced by Basel regulations with the objective to limit the growth of leverage in the banking sector and strengthen the risk-based requirements using a different measure based on balance sheet aggregates.

LGD (Loss-Given-Default): LGD is estimated in the form of a coefficient ranging from 0 to 1 (or in percentages) based on the following drivers: type of borrower, type of guarantee pledged, technical form of lending. This value is required within the framework of the Advanced Internal Ratings-Based Approach (AIRB) for credit risk under Basel framework. When conditioned on adverse macro-economic scenarios (or downturns), the LGD parameter is defined as "downturn LGD".

Liquidity Risk: the risk that a company will be unable to meet its payment obligations due to its inability to liquidate assets or obtain adequate funding from the market (funding liquidity risk) or due to the difficulty/impossibility of rapidly converting financial assets into cash without negatively and significantly affecting their price due to inadequate market depth or temporary market disruptions (market liquidity risk).

L&R (Loans & Receivables): IAS category used to classify credit.

LST (Long Settlement Transactions): long settlement transactions (in which a counterparty commits to delivering (receiving) a security, commodity or foreign currency against receipt (delivery) of cash payment, other financial instruments or goods with settlement upon a pre-established contractual date, later than the one determined by market practice for these types of transaction, namely five days from the transaction stipulation date.

M (Maturity): the residual life of an exposure, calculated according to prudential requirements for credit risk. For banks authorised to use internal ratings, it is explicitly considered if the advanced approach is adopted, while it is predetermined by legislation if the FIR B approach is adopted.

Margin Sensitivity: measurement of the impact which an unexpected shift (parallel or not) in the yield curve by maturity generates on the Bank's estimated one year net interest income. It is typically used to measure interest rate risk in the banking book within Asset & Liability Management (ALM) systems along with Interest Rate Sensitivity.

Mark-to-market: valuation of a position at market value, usually from the trading book. For instruments officially traded on organised markets, it corresponds daily to the market closure price. For unlisted instruments, it results from the development and the application of specifically-developed pricing functions which determine the valuation starting from the market parameters relating to the respective risk factors. It is at the basis of the calculation of P&L in the trading book.

Mark-to-model: Valuation of financial instruments on the basis of internal valuation models since publicly observable market prices or comparable approaches are not available.

Market Risk: the risk of value loss on a financial instrument or a portfolio of financial instruments, resulting from an unfavourable and unexpected change in market risk factors (interest rates, share prices, exchange rates, price of goods, indices,…). A typical risk of the trading book.

Market Value Method (former Current Value method): supervisory method used to determine counterparty risk in derivatives and the capital requirement to cover it. The current value is calculated adding the replacement cost (or intrinsic value, determined on the basis of the "mark-to-market" value of the derivative, if positive) to the future credit exposure (approximating the time value of then derivative, i.e. the probability that, in the future, the intrinsic value will increase, if positive, or convert into a credit exposure if negative); the future credit exposure is determined for all contracts, independently of the positive value of the replacement cost, multiplying the nominal value of each derivative contract by coefficients differentiated by residual maturity and type of contract.

Mezzanine tranche: in a securitisation transaction, it is the tranche ranking between junior and senior tranche. As a rule, the mezzanine tranche is broken down into 2 or more tranches with different levels of risk, subordinated one to the other. They are typically characterised by an investment grade rating.

NFIs: New Financial Instruments, issued pursuant to art. 23-sexies of Legislative Decree no. 95 of 6 July 2012, containing "Urgent measures for reviewing public spending with unchanged services for citizens and measures to strengthen the capital of undertakings in the banking sector" converted, as amended, by law no. 135 of 7 August 2012, n.135 as subsequently amended.

NSFR (Net Stable Funding Ratio): Liquidity regulatory ratio. It is defined as the ratio between the available amount of stable funding and the required amount of stable funding. The time horizon considered for evaluating stable funding is one year. The minimum requirements of the NSFR is being defined by the EBA.

Non performing: term generally referring to loans for which payments are overdue.

Operational Risk: the risk of incurring losses due to inadequacy or failure of processes, human resources or internal systems, or as a result of external events, including legal risk. These include, among other, loss deriving from fraud, human error, business disruption, system failure, breach of contract, natural disasters. Operational Risk includes legal risk while it does not include strategic or reputational risk (included in Pillar II of Basel).

O-SII buffer: Mandatory capital buffer for banks that are identified by the relevant authority as other (at domestic level) systemically important institutions (O-SIIs) to compensate for the higher risk they pose to the domestic financial system and for potential impact of their failure.

Overall Capital Requirement (or Regulatory Capital): the sum of the capital requirements for the individual risk types (Credit, Counterparty, Market and Operational).

OTC Derivatives (Over the Counter): financial and credit derivatives traded over the counter (e.g.: swaps, forward rate agreements).

Own Funds: sum of Tier 1 (T1) and Tier 2 (T2) Capital.

Past due: *see* Default.

PD: *see* Probability of Default.

Performing: term generally referring to loans characterised by regular performance.

Pillar 2 Guidance (P2G): Pillar 2 capital guidance is a supervisory tool setting non-legally binding Pillar 2 capital expectations at a level over and above overall capital requirements based on the supervisory review and evaluation process findings, in particular (i) an assessment of the adequacy of an institution's own funds (quality and quantity), eg the ability to meet the applicable own funds requirements in stressed conditions; or (ii) supervisory concerns over the (excessive) sensitivity of an institution to scenarios assumed in supervisory stress testing. As P2G is positioned above the combined buffer requirement and is non-legally binding guidance, it is not relevant for the purpose of the calculations of maximum distributable amount.

Pillar 2 Requirement (P2R): Binding

capital requirements for risks underestimated or not covered by Pillar 1, which can have direct legal consequences for banks.

Regulatory Banking Book: comprises all positions that are not assigned to the Regulatory Trading Book; its definition is therefore 'residual' in nature, even though most of a retail bank's exposures are assigned to this portfolio; in general, the rules for determining the capital requirements for Credit Risk are applied to the Regulatory Banking Book. See also Banking Book.

Regulatory Trading Book: positions intentionally held for trading purposes and destined to be disposed of in the short term and/or assumed with the aim of benefitting, in the short term, from the differences between purchase and sale price, or other price or interest rate variations. It consists in a set of positions in financial instruments and commodities held for trading or to cover risk inherent in other constituent of the same portfolio. For eligibility to be included under the trading book prudential treatment, the financial instruments must be exempt from any clause which would limit their trade ability or, in alternative, fully covered. Furthermore, the positions must be frequently and accurately assessed. The trading book must be actively managed.

Private equity: activity aimed at the acquisition of equity investments and their subsequent sale to specific counterparties, without public offerings.

Preference shares: are innovative capital instruments that enjoy preferential rights in relation both to dividends (which may be cumulative or non-cumulative) and rights clearance and whose administrative rights are, as a rule, limited or subject to certain conditions of use.

Probability of Default (PD): the probability that a customer/counterparty will default within the space of 1 year. Each PD derives from an internal ratings system and thus falls within a specific range of values corresponding to those used by the official rating agencies (masterscale) so as to obtain standardised data processing between internal and external rating systems.

Profit & Loss (P&L): operational profit or loss indicator of the Trading book which expresses the difference in value of an instrument or a portfolio in a given timeframe, calculated on the basis of market values and directly validated/listed ("mark-to-market") or determined on the basis of internally-adopted pricing models ("mark-to-model").

RAPM: cfr. Risk Adjusted Performance Measurement.

Rating: the degree of risk of non-compliance regarding a specific debtor (counterparty or issuer rating) or a single loan (issuance rating). It is typically expressed through a qualitative assessment belonging to a calibration scale. If determined by a rating agency it becomes an "official" rating. If it is based upon internally-developed models it is called an "internal" rating. It expresses the likelihood of default or insolvency.

Risk: can be defined as an unexpected potential economic loss. Risk is an economic loss in the sense that, against the commercial initiatives undertaken, if risk emerges it always results in a loss of value in the books of the Bank. Risk is an unexpected loss and implies the need to set aside a corresponding sum of capital in order to guarantee the bank's stability and solvency over a long period. Risk is a potential loss in the sense that there may or may not be a certain confidence level (probability) in the future (forward looking) estimate and it is therefore an estimate, nota known value. Since risk is potential, it is always prospective or forward-looking. It is not the measurement of an economic effect that has already materialised.

Risk Adjusted Performance Measurement (RAPM): measurement of performance adjusted by risk. Method of measurement of profitability, which is defined as "risk adjusted" in that – on the one hand - it includes a new P&L negative component under Profit for the Year, that rises as the expected risk component increases (Expected Loss), and - on the other - replaces the "book value" capital used in the transaction with the Economic Capital.

Risk factor: the driver/variable which determines the variation in value of a financial instrument.

RMBS (Residential Mortgage Backed Securities): ABS backed by mortgages.

RWA (Risk Weighted Assets): it results from the application of certain risk weights to exposures as determined by supervisory regulations.

Securitisation A transaction in which the risk associated with financial or real assets is transferred to a SPV by selling the underlying assets or using derivative contracts

Securitisation Cap Test: the test undergone by all securitisation transactions recognised for prudential purposes, according to which the risk-RWAs of securitisation positions are compared with those of securitized exposures (calculated as though the latter were not securitised). If the RWAs of the former are greater than those of the latter (cap) then the latter are taken into consideration.

Scoring: a company's customer analysis system which consists in an indicator resulting from both an analysis of book data and an assessment of the performance forecast for the sector, on the basis of statistic-based methodologies.

Senior/Super Senior tranche: it represents the tranche with the highest credit enhancement, or rather the highest level of privilege in terms of priority of remuneration and reimbursement. It has a high rating and is higher than the mezzanine tranche.

Seniority: Level of subordination regarding the repayment of notes, generally broken down (in decreasing order) into SuperSenior, Senior, Mezzanine, Junior.

Servicer: in securitisation transactions it is the subject that - on the basis of a specific servicing contract - continues to manage the securitized loans or assets after they have been transferred to the special purpose vehicle responsible for issuing the securities.

Settlement Risk: the risk that arises in transactions on securities when, after expiry of a contract, the counterparty is in default with regard to delivery of securities or payment of amounts due.

SFT (Security Financing Transactions): repos and reverse repos on securities or commodities, securities or commodities lending or borrowing transactions and margin lending transactions.

Shift Sensitivity: measurement of the impact of an unexpected and parallel shift in the yield curve upon the bank's economic value. See ALM, Banking Book, Interest Rate Sensitivity, Economic Value Approach.

SMEs: Small and Medium Enterprises.

Speculative grade: issuers or issues with a rating below BBB-.

SPE/SPV (Special Purpose Entities o Special Purpose Vehicles): established in pursuit of specific objectives, mainly to isolate financial risk. The assets consist in a portfolio, the proceeds of which are used for the servicing of bond loans issued. Typically used in asset securitisation transactions.

SREP (Supervisory Review and Evaluation Process): a supervisory review and evaluation process put in place by the Regulatory Authority. It is composed of three main elements:

- A Risk Assessment System (RAS), which assesses the level of risk and control activities of credit institutions;
- a comprehensive review of the ICAAP and ILAAP processes;
- a methodology for quantifying capital and liquidity on the basis of risk assessment results.

Stress test: a set of quantitative and qualitative techniques used by banks to assess their vulnerability to exceptional, though plausible, events.

Surplus Expected Losses on Net Provisions ("Delta PA"): the difference between expected losses and overall net value adjustments, limited to the exposures subject to internal models for credit risk; it is a component of the Own Funds.

Systemic risk buffer Member states have the right to require the banks to hold a systemic risk buffer of common equity tier 1 capital. The requirement may be applied to the entire financial sector or its separate parts. The aim is to prevent and mitigate long-term non-cyclical systemic or macro-prudential risks which may have serious negative consequences for the real economy.

Consolidated Banking Act (CBA): Legislative Decree no. 385 of 1 September 1993 and subsequent amendments and additions.

T1 (Tier 1): Tier 1 capital. It is the sum of CET1 and AT1.

T2 (Tier 2): Tier 2 capital. It is mainly composed of computable subordinated liabilities computable and any excess value adjustments with respect to expected losses for exposures weighted according to the AIRB approach.

Tier 1 Capital Ratio: ratio between T1 and total RWAs.

Tier Total (see Own Funds, former Regulatory Capital): sum of Tier 1 (T1) and Tier 2 (T2) capital.

Total Capital Ratio: ratio between Tier

Total (Own Funds) and total RWAs.

Total SREP Capital Requirement (TSCR) It is the sum of the bank's P2R and the capital requirements set out in Article 92 of the CRR ("Pillar 1 Requirements")

TTC (Through-the-cycle): a rating system which uses a long-term time series and better reflects the risks relating to a borrower's specific situation. The impact of macroeconomic trends on this kind of model are limited. A "Point-in-time" rating system uses a short-term or one year time series and not only reflects information regarding the individual borrower. It produces ratings that change on the basis of systemic factors. Most internal rating models estimated by banks do not perfectly correspond to one rating system or the other but fall somewhere between the two models. They are defined as "Hybrid".

UCITS: Undertakings for Collective Investments in Transferable Securities.

Unlikely-to-Pay (UTP) exposures Represent the on- and off-balance sheet exposures for which the borrower does not meet the conditions for classification under bad loans and for which it is considered unlikely that the borrower will be able to fully satisfy the credit obligations in terms of principal and/or interest without recourse to actions such as the enforcement of collateral

Value-at-Risk (VaR): probability measure of a portfolio's market risk. It is defined as the maximum potential loss in value of an asset or portfolio over a defined period *(holding period)* for a given *confidence interval* (with the *confidence level* expressing probability). As an example, with regard to the trading book, the VaR model estimates the maximum decrease (loss) that a portfolio is expected to incur with a specified probability (for ex. 99%), over a defined time horizon (for ex. 1 day). In this example, a 1 day VaR with a 99% confidence implies that there is only a 1% chance of the Bank losing more than the VaR amount in one single working day.

Volatility: measure of the exposure to fluctuations of a risk factor (e.g. rates, prices, foreign exchange,…) over a set period of time.

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