Pillar 3 Disclosure

Update as at
31 December 2019

MONTE DEI PASCHI DI SIENA
BANK SINCE 1472

Pillar 3 Disclosure

Update as at
31 December 2019

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
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 285 of 17 December 2013 and subsequent updates–Supervisory Provisions for Banks;
- ✓ Circular 286 of 17 December 2013 and subsequent updates–Instructions for Prudential reporting for banks and securities' firm;
- ✓ Circular 154 of 22 November 1991 and subsequent updates–Supervisory reports of banks and financial institutions. Reporting templates and instructions for transmission of information flows.

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").

Under the new regulations, the CRR requires banks to 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 its guidelines (EBA/GL/2014/14 of 23-12-2014), 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 at 31 December 2019 and presents the disclosure templates provided for by the current regulatory framework.

In December 2016, the European Banking Association (EBA) published its Guidelines on disclosure requirements under Part Eight of the Capital Requirement Regulation (CRR), 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 to complement the disclosure of liquidity risk management 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) which establish the templates for the publication of information relating to the impacts on own funds resulting from the introduction of the regulation (EU) 2017/2395, containing "Transitional arrangements for mitigating the impact of the introduction of IFRS 9 on own funds".

In addition to the disclosure requirements set out in the "Guidance to banks on non-performing loans", published by the ECB in March 2017 and applicable from the reporting dates for the financial year 2018, which formed the basis for the supplementation of existing tables, 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.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 responsabilities 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.mps.it/Investor+Relations.

Additional information required under the CRR is published in the Annual Report as at 31 December 2018, the Corporate Governance Report and the Remuneration Report. Based on art. 434 of the CRR, which provides for the possibility to make reference 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 1 – Risks of the Banking: 1.1 Credit risk);
- market risk (Part E – Information on risks and hedging policies: Section 1 – Risks of the Banking: 1.2 Market risk);
- Banking Group Liquidity risk (Part E – Information on risks and hedging policies: Section 1 – Risks of the Banking: 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:
- the number of directorships held by members of the management body;
- the recruitment policy for the selection of members of the management body and their actual knowledge, skills and expertise;
- the policy on diversity with regard to 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;
- whether or not the institution has set up a separate risk committee and the number of times the risk committee has met;
- the description of the information flow on risk to the management body.

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 1 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

ExecutiveSummary

Key Regulatory Metrics		
CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
14.72% *up +98 bps* *Dec-18: 13.74%*	14.72% *up +98 bps* *Dec-18: 13.74%*	16.69% *up +148 bps* *Dec-18: 15.21%*
Overall Capital Requirement		
CET1 ratio: 10.00%	*Tier1 ratio: 11.50%*	*Total Capital ratio: 13.50%*
Total RWA	Credit Risk EAD	
€ 58.6 mld *up +0.3%* *Dec-18: € 58.4 mld*	€ 131.2 mld *down -2.3%* *Dec-18: € 134.2 mld*	
LCR[1]	NSFR	Leverage Ratio
152.4% *down -19.9%* *Dec-18: 190.2%*	112.6% *up +0.3%* *Dec-18: 112.3%*	6.1% *up +10.9%* *Dec-18: 5.5%*
Minimum requirement of LCR		
LCR: 100%		
Net NPE Ratio	Coverage Ratio	
6.8% *down -24.4%* *Dec-18: 9.0%*	48.8% *down -8.1%* *Dec-18: 53.1%*	

[1] The comparative figure relating to the LCR index as of 31 December 2018 was restated to take into account a specific interpretative clarification provided by the Supervisory Authority.

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. The Group believes increasingly crucial oversee the evolution of the credit quality of the portfolio in the macroeconomic scenario.

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 – 2019

The Parent Company received the final SREP decision from the Supervisory Authority on 8 February 2019. As regards own funds, the ECB asked BMPS to maintain a total SREP capital requirement of 11% at consolidated level starting from 1 March 2019, which includes a minimum Pillar 1 requirement (P1R) of 8% and an additional Pillar 2 requirement (P2R) of 3%, fully comprised of CET1. The P2R is therefore the same as in 2018.

Moreover, as of 1 January 2019, the Group will no longer be required to comply with the O-SII Buffer as, for 2019, it was not identified by the Bank of Italy as a systemically important institution authorised in Italy. The Capital Conservation Buffer will be fully implemented in 2019 (2.5%). The following table shows the minimum capital requirements which Group must respect.

Capital adequacy indicators **as of 1 March 2019**	CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
Pillar I minimun Requirements (Art. 92 CRR, Pillar I)	*4.50%*	*6.00%*	*8.00%*
Pillar 2 Requirement (P2R)	*3.00%*	*3.00%*	*3.00%*
TSCR (Pillar I+P2R)	*7.50%*	*9.00%*	*11.00%*
OCR (TSCR+CBR)	**10.00%**	**11.50%**	**13.50%**

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.

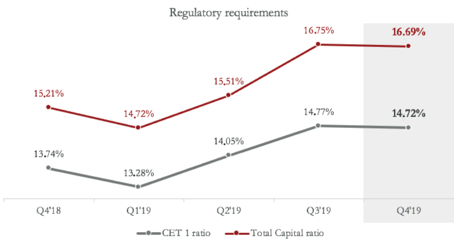
As regards the *guidance ("P2G"),* the ECB expects BMPS to adjust on a consolidated basis to a P2G of 1.3%, compared to 1.5% in 2018. For further details, please refer to chapter 4 of this document.

As at 31 December 2019, the Bank had a CET 1 ratio of 14.72%, 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 2019 (likewise, the Tier 1 ratio and the Total Capital Ratio equal to 14.72% and 16.69%, respectively, are higher than the requirements established by Article 92 of the CRR.).

Capital adequacy indicators **as of 1 March 2019**	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 + Pillar II)	*7.50%*	*9.00%*	*11.00%*
OCR (TSCR+CBR)	*10.00%*	*11.50%*	*13.50%*
OCR + P2G	**11.30%**	**11.50%**	**13.50%**
Capital Ratios at 30 September 2019	**14.72%**	**14.72%**	**16.69%**

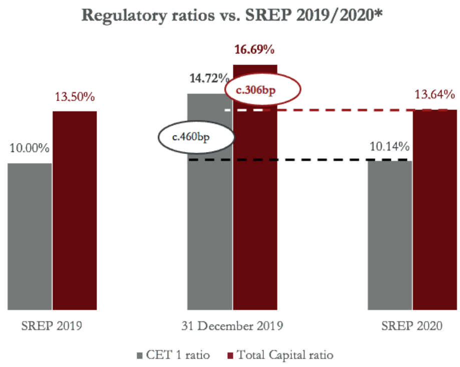
TSCR - Total SREP Capital Requirement
CBR - Combined Buffer Requirement
OCR - Overall Capital Requirement. It includes, in addition to P2R, 2.5% for the Capital Conservation Buffer.
P2G - Pillar 2 Guidance

At the end of 2019, the Total Capital Ratio of 16.69%, registered an increase from the end of 2018 (of 15.21%) mainly due to the T2 bond issue completed in July 2018.



Moreover, as at the same date, the Montepaschi Group held a significant buffer to meet the SREP OCR established by the Supervisory Authority for 2020 following the Supervisory Review and Evaluation Process.

Specifically, BMPS has a buffer of +460bps in terms of CET1 Ratio and +360bps in terms of Total Capital Ratio (excluding P2G).



The overall minimum requirement in terms of Total Capital Ratio is 13.64%, obtained by adding a 2.64% Combined Buffer Requirement (CBR: 2.50% Capital Conservation Buffer + 0.13% O-SII Buffer + 0.01% Countercyclical Capital Buffer) to the TSCR.

As regards its guidance, the ECB expects BMPS to adjust on a consolidated basis to a P2G of 1.3%, to be fully satisfied with Common Equity Tier 1.

The MPS Group's capital requirements for 2019 and 2018 and related differences are summarized in the table below.

Own Funds and Capital Requirements Summary

Data in thousands of Euro

			Delta vs. 31-12-2018	
Own Funds	**Dec-19**	**Dec-18**	**Absolute**	**%**
Common Equity Tier 1	8,620,324	8,020,457	599,867	7.5%
Additional Tier 1	-	-	-	-
Tier 2	1,154,336	857,482	296,854	34.6%
Own Funds	**9,774,660**	**8,877,939**	**896,721**	**10.1%**
↳ *of which Delta EL**	*169,999*	*171,131*	*-1,133*	*-0.7%*
Regulatory Capital Requirements				
Credit and Counterparty Risk	3,618,890	3,674,032	-55,143	-1.5%
↳ *of which Standard*	*1,340,481*	*1,379,799*	*-39,318*	*-2.8%*
↳ *of which AIRB*	*2,278,409*	*2,294,234*	*-15,825*	*-0.7%*
Market Risk	211,703	194,079	17,623	9.1%
↳ *of which Standard*	*211,703*	*194,079*	*17,623*	*9.1%*
↳ *of which Internal Model*	-	-	-	-
Operational Risk	825,620	764,998	60,622	7.9%
↳ *of which Foundation Approach*	*7,743*	*11,734*	*-3,991*	*-34.0%*
↳ *of which Standardised Approach*	-	-	-	-
↳ *of which Advanced Approach*	*817,877*	*753,264*	*64,613*	*8.6%*
CVA Risk	28,515	36,615	-8,100	-22.1%
Concentration Risk	-	-	-	-
Settlement Risk	-	-	-	-
Regulatory Capital Requirements	**4,684,728**	**4,669,725**	**15,003**	**0.3%**
Risk Weighted Assets	**58,559,094**	**58,371,557**	**187,537**	**0.3%**
of which Credit and Counterparty Risk	*45,236,121*	*45,925,406*	*-689,285*	*-1.5%*
of which Market Risk	*2,646,285*	*2,425,993*	*220,293*	*9.1%*
of which Operational Risk	*10,320,251*	*9,562,475*	*757,776*	*7.9%*
of which CVA Risk	*356,437*	*457,684*	*-101,247*	*-22.1%*

			Delta vs. 31-12-2018	
Capital ratios			**in bp**	**in %**
CET1 Capital Ratio	**14.72%**	**13.74%**	**98**	**0.98%**
Tier1 Capital Ratio	**14.72%**	**13.74%**	**98**	**0.98%**
Total Capital Ratio	**16.69%**	**15.21%**	**148**	**1.48%**

** 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 490,751 €/thousand (1,123,116 €/thousand as at December 2018)*

Compared to 31 December 2018, CET1 rose by a total of EUR 600 mln, essentially due to the following phenomena:

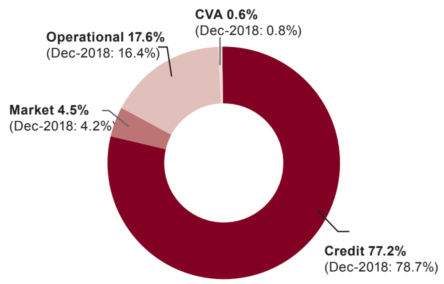
- improvement in the balance of the Other Comprehensive Income Reserve, for EUR 243 mln, and other reserves for EUR 90 mln (primarily due to the elimination of the indemnity issued to Bank of NY in relation to FRESH 2008, amounting to EUR 76 mln, after the ten-year time limit was reached);
- the loss for the year of EUR 1,033 mln;
- cancellation of the filter on multiple tax deduction of the same goodwill, set forth in the 29th update of Circ. 285 of the Bank of Italy, for EUR 192 mln;
- decrease in deductions associated with intangible assets (EUR 44 mln) and DTAs (EUR 837 mln), in addition to the decrease in non-exempt deductions relating to qualified financial investments and DTAs (for a total of EUR 495 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 -256 mln and the negative effects of the end of the transition period for EUR -12 mln.

Tier 2 marked an increase of EUR 297 mln compared to the end of December 2018, substantially due to the issue in July 2019 of subordinated T2 bonds for EUR 300 mln.

The Total Capital Ratio therefore reflects an overall increase in own funds of EUR 897 mln.

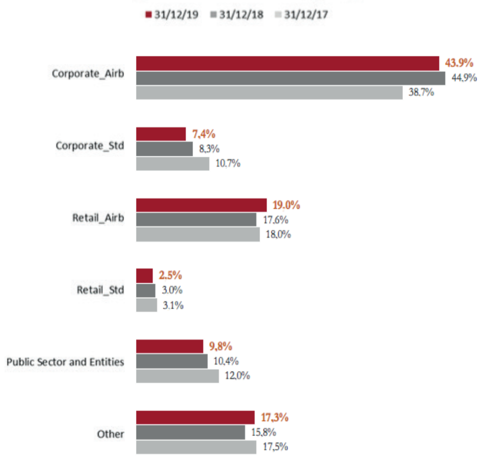
The RWAs recorded an overall increase of EUR 188 mln, due to lowers RWAs relating to credit and counterparty risk (EUR -689 mln) and CVA risk (EUR -101 mln), and higher RWAs for market risk (EUR +220 mln) and operational risk (EUR +758 mln).

Breakdown of RWAs by risk type



The breakdown of RWAs by risk type is concentrated mainly on Credit Risk (77%) and are focused mainly on corporate exposures and retail exposures with AIRB approach (43.9% and 19.0%).

RWA performance Credit Risk by ptf (%)



The short-term liquidity indicator, the Liquidity Coverage Ratio (LCR), was 152.4% as at 31 December 2019, higher than the minimum regulatory requirement for 2019 (100%), and down from December 2018 (190.2%).

The medium/long-term liquidity indicator, the Net Stable Funding Ratio (NSFR), was 112.6% as at 31 December 2019, slightly up since December 2018 (112.3%).

The trend of the regulatory liquidity indicators between 2018 and 2019 (in particular LCR) was affected by the approaching of the maturity date, between January and March 2020, of the Notes with Government Guarantees (GGB) issued by BMPS in 2017 and still outstanding for a nominal amount of EUR 8 bn.

The Group also determined its overall internal Risk Appetite Framework (RAF) for 2019 also.

The objective of the RAF is to ensure alignment between the Group's actual risk profile and the risk appetite defined 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 RAF for 2019 was formalized in a Risk Appetite Statement (RAS 2019) 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, 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. 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 limit thresholds.

At the end of 2019, compliance with regulatory thresholds of the Capital Adequacy and Liquidity Adequacy was confirmed, in addition to compliance with the more prudential internal risk appetite targets.

Some deviations from the internal thresholds has come forward within the Performance KRIs, affected

by the activities undertaken to comply with certain commitments in the Restructuring Plan as well as by actions to improve the quality of the credit portfolio.

The RoE, in particular, was affected by the reassessment of DTA carried out at the end of 2019.

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 fact, 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. The RAS is the formal document that contains the explicit declaration of the risk/return objectives/limits (overall, by type and broken down by individual companies/business units) that the Bank intends to assume to pursue its strategies. Therefore, with the RAS, the risk objectives/restrictions are identified, and the indicators are broken down by Business Unit/Legal

Entity (known as "cascading down" of the Risk Appetite). 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.

The Risk Appetite is then allocated, through specific mandates, to the CEO/GM, in terms of operating 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. 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

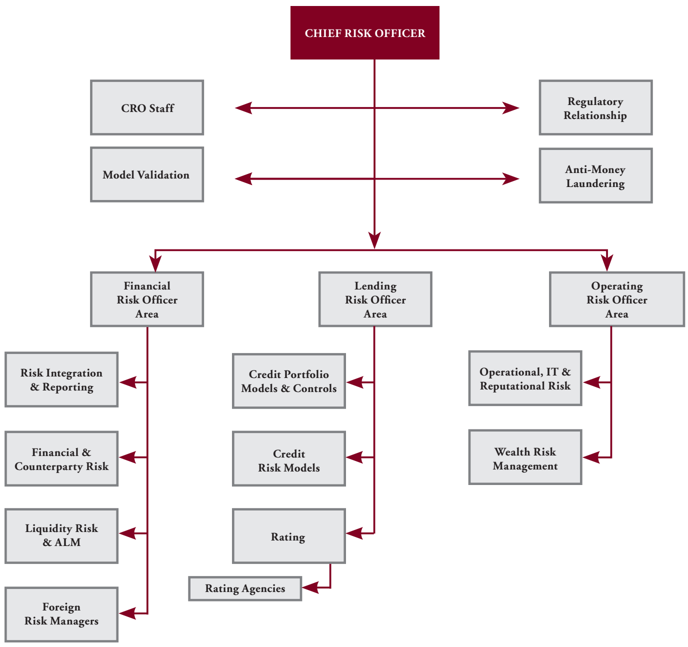
The Chief Risk Officer (CRO) Department performs activities related to risk control, anti-money laundering and counter-terrorist financing (AML) and internal approval functions.

The Head of the Chief Risk Officer (CRO) Department, in addition to being responsible for the risk control function, starting from July 2019 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.

The Risk Manager of the Parent Company's Foreign branch (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 with strategic supervisory functions and only functionally to the Management Body. It has direct access to the Body with control functions and may communicate continuously with no restriction or intermediation. The CRO is also entitled at his or her discretion to participate in Risk 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 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** (hereinafter FRO), which defines the integrated methods of risk measurement/analysis and ensures they are constantly monitored, verifying their consistency with the risk appetite and compliance with the thresholds defined in terms of adequacy with respect to capital and liquidity reserves, 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 other external/institutional information (Financial Disclosure, Consob Prospectuses, Capital increase, Rating Companies, Regulators).
- The **Lending Risk Officer Area** (hereinafter LRO) 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. Furthermore, the LRO Area 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** (hereinafter ORO), 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 **Staff Regulatory Relationship**, which was established for the centralized oversight of the management of relations with assessments by the Supervisory Authorities, coordinating and monitoring the planning of commitments undertaken and the main lines of development in the European regulatory framework as well as managing the process of monitoring the execution of the Restructuring Plan and the related Commitments;
- 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.Within the Internal Control System, defined as a set of rules, procedures and organisational structures which ensure sound and fair business practices that are consistent with set objectives of performance, improvement, protection, information and compliances, second-level of controls are carried out by the Risk Management Function.

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)

In reference to the Group's Risk Culture, the Risk Management Function contributes to increasing it not only through the identification of with the of risk objectives/restrictions and the "cascading down" of the Risk Appetite but also through initiatives regarding corporate bodies (board induction cycles on specific issues) as well as general training initiatives (on-line courses) for all personnel in the areas of risk management and mitigation, as well as other classroom training sessions.

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 in the decision-making bodies.

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 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.

The stress test scenarios used in the Risk Appetite Framework (RAF), Internal Capital Adequacy Assessment Process (ICAAP) / Internal Liquidity Adequacy Assessment Process (ILAAP) and the results from the stress test are submitted to the Top Management and Board of Directors (BoD). They are formally examined by the BoD as part of the ICAAP/ILAAP Annual Report approval process, with a view to providing a self-assessment of the current and prospective capital adequacy and liquidity of the Group. With regard to the 2019 ICAAP-ILAAP, in particular, adverse macroeconomic scenarios over a three-year horizon were defined. In addition, the Bank conducted reverse stress testing activities to highlight further institution-specific vulnerabilities.

These scenarios included both idiosyncratic (trend on commissions and Group's risk premium) and market-wide stress assumptions. The target for the development of Reverse Stress is a threshold that represents the level of sustainability of the Group's business model / strategic plan.

In terms of Liquidity Risk, the Group adopts the Liquidity Risk Stress Test Framework (LRSTF), which is the part of the Liquidity Risk Framework that analyses vulnerabilities in the liquidity position across the different risk segments. The Liquidity Risk Stress Test Framework 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

IEach 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 31-12-2019, 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 bn, 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 entities	-	✓

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, 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 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.

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 (i.e. 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, and are 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, based on the analysis of the customer's prospective solvency, 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 (insurance, guarantee funds). 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: DI PO) 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-to-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 and in compliance with other specific issuer and concentration risk limits approved by the Board of Directors.
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 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 and refers to positions held in the Banking Book and the Trading Book. 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 2019, 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 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 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) and of the ILAAP.

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, i.e. 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 loans over more-than-1-year and more-than-5-year maturity deposits and the ratio of loans to retail/corporate deposits in addition to the regulatory measurement of the Net Stable Funding Ratio (NSFR) in accordance with the BCBS definition.

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 and under stress conditions. 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 (CRD4/CRR), 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 requirement is calculated on both a current and forward-looking basis and under business-as-usual and adverse (stressed) conditions, quantifying the profit & loss impact resulting from the possible failure of certain assumptions included in the Business Plan. 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.

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.

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. 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.

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.

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.

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.

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.

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 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 Management.

The corporate legislation assigns the function of controlling this type of risk to the Reputational Risk and Business Model Service, within the Operating Risk Officer of the Chief Risk Officer of the Parent Company.

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 Code of Ethics was revised in 2019 so as to adapt its contents to regulatory changes and corporate policies as well as to enhance transparency and comprehensibility. 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 corporate legislation assigns the function of controlling this type of risk to the Operating, IT and Reputational Risk Service, within the Operating Risk Officer of the Chief Risk Officer of the Parent Company. In 2019 the management of reputational risk was strengthened also through the formalisation of a 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 (going concern), aimed at overseeing and increasing reputation, favoring sustainable development strategies, permeating the entire bank of a value system focused on the ethics of sustainability aimed at preventing the onset of risk and / or mitigating potential impacts, and extraordinary management (gone concern), 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.

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 2019.

Tab. 2.1 Scope of application at 31.12.2019 (EU LI3)

	Registered Office	Sector	Shareholding %	Type of relationship (a)	Voting rights % (b)	Treatment in the Balance Sheet	Treatment for Supervisory Purposes			
							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.	Paris	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 SOCIETÀ AGRICOLA S.p.a	Siena	Wine industry	100.00	1	100.00	Full			x	
MONTE PASCHI CONSEIL FRANCE SOCIETE PAR ACTIONS SEMPLIFIEE	Paris	Financial intermediary	100.00	1	100.00	Full	x			
MONTEPASCHI LUXEMBOURG S.A. in liquidazione	Luxembourg	Financial vehicle	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.	Paris	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 equivalents	835,104	835,103	835,103	-	-	-	-
20. Financial assets measured at fair value through profit and loss	10,666,399	10,666,399	323,738	2,968,206	-	9,899,234	443,427
a) financial assets held for trading	9,902,460	9,902,460	-	2,968,206	-	9,899,234	3,226
of which derivatives	*2,968,206*	*2,968,206*	-	*2,968,206*	-	*2,968,206*	-
b) other financial assets measured at fair value mandatory	*763,939*	*763,939*	*323,738*	-	-	-	*440,201*
of which loans and advances	*149,955*	*149,955*	-	-	-	-	-
30. Financial assets measured at fair value through other comprehensive income	6,726,821	6,726,821	6,482,544	-	-	-	-
of which debt securities	*6,482,544*	*6,482,544*	*6,482,544*	-	-	-	-
40. Financial assets measured at amortised cost	104,707,537	104,719,499	104,719,499	4,971,836	-	-	62,437
of which loans to banks	*15,722,404*	*15,722,404*	*15,722,404*	*537,816*	-	-	-
of which loans to customers	*88,985,132*	*88,997,094*	*88,934,657*	*4,434,020*	-	-	*62,437*
50. Hedging derivatives	73,003	73,003	-	73,003	-	-	-
60. Change in value of macro-hedged financial assets (+/-)	635,979	635,979	635,979	-	-	-	-
70. Equity investments	930,976	986,230	824,666	-	-	-	161,565
90. Property, plant and equipment	2,709,106	2,638,101	2,638,101	-	-	-	-
100. Intangible assets	176,097	176,068	-	-	-	-	176,068
110. Tax assets	2,762,954	2,761,951	2,417,075	-	-	-	344,877
120. Non-current assets and groups of assets held for sale and discontinued operations	159,820	159,860	159,860	-	-	-	-
130. Other assets	1,812,210	1,848,896	1,848,896	-	-	-	-
Total assets	**132,196,007**	**132,227,909**	**120,885,459**	**8,013,046**	**-**	**9,899,234**	**1,188,373**
Total Liabilities and Shareholders' Equity							
10. Financial liabilities measured at amortised cost	114,148,310	114,179,642	-	8,878,063	-	-	105,301,579
deposits from banks	*20,178,137*	*20,159,639*		*2,704,382*			*17,455,258*
deposits from customers	*76,526,919*	*76,576,749*		*6,173,681*			*70,403,068*
debts securities issued	*17,443,253*	*17,443,253*					*17,443,253*
20. Financial liabilities held for trading	3,882,623	3,882,623		1,446,585		3,882,623	
of which debt securities		*1,446,585*		*1,446,585*			
30. Financial liabilities designated at fair value	247,116	247,116					247,116
40. Hedging derivatives	1,315,905	1,315,905		1,315,905			
50. Fair value change of financial liabilities in hedged portfolio (+/-)	31,390	31,390					31,390
60. Tax liabilities	3,361	1,794	1,794				
70. Liabilities associated with non-current assets held for sale and discontinued operations	-	-					-
80/90. Other liabilities and Provision for employees severance pay	3,076,539	3,078,677					3,078,677
100. Provision for risks and charges	1,209,874	1,209,874					1,209,874
120. Valuation reserves	66,394	66,394					66,394
150. Reserves	-769,173	-769,173					-769,173
170. Share capital	10,328,618	10,328,618					10,328,618
180. Treasury shares (-)	-313,710	-313,710					-313,710
190. Non-controlling interests (+/-)	1,770	1,770					1,770
200. Profit (loss)	-1,033,011	-1,033,011					-1,033,011
Total Liabilities and Shareholders' Equity	**132,196,007**	**132,227,909**	**1,794**	**11,640,553**	**-**	**3,882,623**	**118,149,525**

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 new financial reporting standard IFRS 9, started from 1 January 2018. Moreover, an additional grandfathering framework has been introduced to the instruments issued before 27 June 2019 that do not meet the requirements envisaged in the new regulatory provisions, aimed at the gradual exclusion of instruments no longer regarded as eligible from own funds (over a period that will end in 2021).

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, 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").*

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 2019 Contribution to capital (€/000)
Ordinary shares	N.A.	NO	N.A.	N.A.	N.A.	EUR	NO	10,328,618,260	10,014,908
Total Equity Instruments (Common Equity Tier 1 - CET1)									**10,014,908**

On 1 January 2018, the new 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 2018 to 31 December 2018
- ✓ 85% from 1 January 2019 to 31 December 2019
- ✓ 70% from 1 January 2020 to 31 December 2020
- ✓ 50% from 1 January 2021 to 31 December 2021
- ✓ 25% 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.

On 23 July 2019, the Parent Company successfully concluded the issue of a fixed-rate Tier 2 subordinated bond with 10-year maturity, for 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 as of	Currency	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 (T2) capital									**1,050,000**

**5.375% until 18/01/2023, then 5y eur mid swap rate + 5.005%*

Banca Monte dei Paschi di Siena announces that it has successfully completed the placement of a fixed-rate Tier 2 subordinated bond, with a 10-year maturity (callable after 5 years from the issue date at the issuer's discretion, subject to regulatory approval), with a EUR 400 million size at an 8% annual yield.

The following table is 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 table provides 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.	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier	**XS1752894292**	**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	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	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	750	300
9	Nominal amount of instrument (currency in million)	750	300
9a	Issue price	100,00	100,00
9b	Redemption price	100,00	100,00
10	Accounting classification	Liability - amortised cost	Liability - amortised cost
11	Original date of issuance	18/01/18	23/07/19
12	Perpetual or dated	On maturity	On maturity
13	Original maturity date	18/01/28	23/07/29
14	Issuer call subject to prior supervisory approval	Yes	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.	Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A	N/A
	Coupons / dividends		
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years	Fixed rate p.a.
18	Coupon rate and any related index	5.375% till 18/01/2023, thereafter 5y eur mid swap rate +5.005%	10,500%
19	Existence of a dividend stopper	No	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory	Mandatory
21	Existence of step up or other incentive to redeem	No	No
22	Cumulative or Noncumulative	Non-cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A	N/A
25	If convertible, fully or partially	N/A	N/A
26	If convertible, conversion rate	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A
30	Write-down features	No	No
31	If write-down, write-down trigger(s)	N/A	N/A
32	If write-down, full or partial	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior	Senior
36	Non-compliant transitioned features	No	No
37	If yes, specify non-compliant features	N/A	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 31/12/2018 is brought according to the rules in force on 31/12/2018.

Tab. 3.1.1 – Transitional own funds disclosure template

	Common Equity Tier 1: instruments and reserves	Dec-2019	Dec-2018
1	Capital instruments and the related share premium accounts	10,328,618	10,328,618
	of which: Paid up capital instruments	*10,328,618*	*10,328,618*
2	Retained earnings	-734,190	-999,458
3	Accumulated other comprehensive income (and other reserves, to include unrealised gain and losses under the applicable accounting standards)	31,411	-302,070
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	-1,033,011	278,578
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**8,592,829**	**9,305,669**
	Common Equity Tier 1 (CET1) capital: regulatory adjustments		
7	Additional value adjustments (negative amount)	-47,063	-53,286
8	Intangible assets (net of related tax liability) (negative amount)	-225,209	-269,476
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)	-344,817	-1,181,817
11	Fair value reserves related to gains or losses on cash flow hedges	-1,328	8
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	-39,486	-45,322
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)	-22,414	-70,700
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)	-	-134,089
22	Amount exceeding the 15% threshold (negative amount)	-149,715	-462,433
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*	*-90,039*	*-231,216*
25	*of which: deferred tax assets arising from temporary differences*	*-59,676*	*-231,216*
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]	1,171,237	1,245,614
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	-	-
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**27,495**	**-1,285,212**
29	**Common Equity Tier 1 (CET1) Capital**	**8,620,324**	**8,020,457**

[1]Such item includes, IFRS 9 transitional adjustments for 1,169,984 €/ thousands (1,09,.381 €/thousands as at 31/12/2018) and other deductions with 17.65% thresholds for 1,253 €/thousands (2,564 €/thousands as at 31/12/2018). The amount as at 31/12/2018 also includes IAS 19 transitional adjustments for 11,563 €/thousands and tax realignment for -192,281 €/thousands.

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

	Additional Tier 1 (AT1) capital: instruments	Dec-2019	Dec-2018
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	-	-
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)**	**8,620,324**	**8,020,457**

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

	Tier 2 (T2) capital: instruments and provisions	Dec-2019	Dec-2018
46	Capital instruments and the realted share premium accounts	1,050,000	750,000
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	169,999	171,131
51	**Tier 2 (T2) capital before regulatory adjustments**	**1,219,999**	**921,131**
	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)	-65,663	-63,649
56a	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: Not Significant financial instruments	-	-
	of which: outstanding amount related to the excess of expected losses with respect to adjustments for IRB positions	-	-
56c	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**	**-65,663**	**-63,649**
58	**Tier 2 (T2) capital**	**1,154,336**	**857,482**
59	**Total Capital (TC= T1+T2)**	**9,774,660**	**8,877,939**

Tab. 3.1.4 – Own Funds: Capital ratios and buffers

	Capital ratios and buffer	Dec-2019	Dec-2018
60	**Total Risk Weighted Assets**	**58,559,094**	**58,371,557**
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	14.72%	13.74%
62	Tier 1 (as a percentage of risk exposure amount)	14.72%	13.74%
63	Total capital (as a percentage of risk exposure amount)	16.69%	15.21%
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)	7.01%	6.44%
65	*of which: capital conservation buffer requirement*	*2.500%*	*1.875%*
66	*of which: countercyclical buffer requirement*	*0.011%*	*0.002%*
67	*of which: systemic risk buffer requirement*	-	-
67a	*of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer*	-	*0.06%*
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount) [2]	8.69%	7.21%
	Amounts below the thresholds for deduction (before risk weighting)		
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)	162,340	101,767
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)	762,122	727,542
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)	505,115	587,276
	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)	490,751	1,123,116
79	Cap on inclusion of credit risk adjustments in T2 under IRB approach	169,999	171,131
	Capital instruments subject to phase-out arrangements (only 1 Jan 2014 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	-	321,503
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	328,497
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 referring 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-2019	Dec-2018
Group Equity	8,279,119	8,991,959
Minority Equity	1,770	2,242
Net Assets of the Balance Sheet	**8,280,889**	**8,994,200**
Net Assets after distribution to shareholders	**8,280,889**	**8,994,200**
Adjustments for instruments computable in AT1 or T2		
- Capital share computable in AT1	-	-
- Minority interests computable	-1,770	-2,242
- Own shares included in the regulatory adjustments	-313,710	-313,710
- Other components non computable in regime	-1,328	8
Common Equity Tier 1 (CET1) before the regulatory adjustments	**8,277,791**	**8,991,966**
Regulatory adjustments (including adjustments of the transitional period)	342,533	-971,510
Common Equity Tier 1 (CET1) net of regulatory adjustments	**8,620,324**	**8,020,457**

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	930,976	986,230	55,254	-161,565	8, 18, 19, 23
of which: implicit goodwill	*49,112*	*49,112*	-	*-49,112*	*8*
100. Intangible assets	176,097	176,097	-	-176,097	8
of which: goodwill	*7,900*	*7,900*	-	*-7,900*	*8*
of which: other intangible assets	*168,197*	*168,197*	-	*-168,197*	*8*
110. Tax assets	2,762,954	2,761,951	-1,933	-404,493	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	*363,848*	*363,848*	-	*-344,817*	*10*
Liabilities and Shareholders' Equity					
10. Financial liabilities measured at amortised cost - c) debts securities issued	17,443,253	17,443,253	-	1,050,000	32, 33, 46, 52
30. Financial liabilities designated at fair value	247,116	247,116	-	-	33
120. Valuation reserves	66,394	66,394	-	65,066	3, 11
of which: FVOCI	*134,125*	*134,125*	-	*57,341*	*3 (FVOCI)*
of which: CFH	*1,237*	*1,237*	-	*-1,328*	*3(CFH),11*
of which: legally-required revaluations	*9,053*	*9,053*	-	*9,053*	*3(rival)*
of which: other	*-78,021*	*-78,021*	-	-	*3(others)*
150. Reserves	-769,173	-769,173	-	-769,173	2, 3
160. Share premium reserve	-	-	-	-	-
170. Share Capital	10,328,618	10,328,618	-	10,328,618	1, 2, 31
180. Treasury shares	-313,710	-313,710	-	-313,710	16
200. Profit/loss for the period	-1,033,011	-1,033,011	-	-1,033,011	5a, 25a
Fair value gains and losses arising from the institution's own credit risk related to derivative liabilities				-39,486	14
Value adjustments due to the requirements for prudent valuation				-47,063	7
IRB Shortfall of credit risk adjustments to expected losses				-	12
IRB Excess of provisions over expected losses eligible				169,999	50
Filter on double tax realignment				-	26b
Filter for IAS 19 and IFRS 9				1,171,237	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				-65,663	54, 55
Indirect investments				-	-
Total Own Funds				**9,774,660**	

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 (art. 92 CRR), the minimum equity requirements are as follows:

- CET1 ratio of at least 4.5% of the Group's total risk exposure;
- AT1 ratio of at least 6% of the Group's total risk exposure;
- Total 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 risk, 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 1.25% of the Bank's total risk exposure for 2017; 1.875% from 1 January 2018 to 31 December 2018; 2.5% as 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 2017, 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. Moreover, as of 1 January 2019, the Group is no longer required to comply with the O-SII Buffer as, for 2019, it was not identified by the Bank of Italy as a systemically important institution authorised in Italy. Note that compared with last year, the Group has returned to O-SII status. The combination of these buffers determines the Combined Buffer Requirement (CBR).

Capital requirements – 2019

The Parent Company received the new SREP decision from the Supervisory Authority on 8 February 2019. As regards Own Funds, the ECB asked BMPS to maintain a total SREP capital requirement of 11% at consolidated level starting from 1 March 2019, which includes a minimum Pillar 1 requirement (P1R) of 8% and an additional Pillar 2 requirement (P2R) of 3%. As regards its guidance, the ECB expects BMPS to adjust on a consolidated basis to a P2G of 1.3%, compared to 1.5% in 2018, to be fully met with Common Equity Tier 1 capital. Please note that failure to comply with the Pillar 2 Guidance (P2G) requirement is not equivalent to failure to comply with capital requirements; however, in the case of a reduction of capital below the level that includes the P2G requirement, BMPS will need to promptly disclose the reasons for non-observance to the Supervisory Authority, which will evaluate and communicate any measures on a case by case basis. Moreover, as of 1 January 2019, the Group is no longer required to comply with the O-SII Buffer as, for 2019, it was not identified by the Bank of Italy as a systemically important institution authorised in Italy.

From 1 January 2019, all banks have to hold a capital conservation buffer of the highest quality of its capital (Common Equity Tier 1 capital) equal to 2.5% of a bank's total risk exposure. The following table shows the minimum capital requirements which Group must respect.

Capital adequacy indicators as of 1 March 2019	CET 1 Ratio	Tier 1 Ratio	Total Capital Ratio
Pillar I minimun Requirements (Art. 92 CRR, Pillar I)	*4.50%*	*6.00%*	*8.00%*
Pillar 2 Requirement (P2R)	*3.00%*	*3.00%*	*3.00%*
TSCR (Pillar I+P2R)	*7.50%*	*9.00%*	*11.00%*
OCR (TSCR+CBR)	**10.00%**	**11.50%**	**13.50%**

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.

Capital requirements – 2020

For the 2019 SREP, the Parent Company received the 2019 SREP Decision on 10 December 2019, which does not contain significant changes to the quantitative prudential requirements of the 2018 SREP Decision. Specifically, MPS Group must meet a total SREP capital requirement of 11% at consolidated level in 2020, (including a minimum Pillar 1 requirement "P1R" of 8%, of which 4.50% in CET1 capital and an additional Pillar 2 requirement "P2R" of 3% to be held entirely in CET1), unchanged from 2019, to be held entirely in CET1 capital. Moreover, with regard to Pillar II Capital Guidance, the ECB expects BMPS to maintain, on a consolidated basis, a requirement of 1.3%, to be fully met with Common Equity Tier 1 capital, in addition to the total minimum requirement for the Overall Capital Requirement (OCR).

Note in addition 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), in addition to the Countercyclical Capital Buffer. The following table shows the minimum capital requirements which the Group must respect for 2020.

Capital adequacy indicators as of 1 January 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%*
Pillar II Requirements (P2R)	*3.00%*	*3.00%*	*3.00%*
TSCR (Pillar I+P2R)	*7.50%*	*9.00%*	*11.00%*
Combined Buffer Requirement (CBR)	*2.64%*	*2.64%*	*2.64%*
of which: Capital Conservation Buffer	*2.500%*	*2.500%*	*2.500%*
of which: O-SII Buffer	*0.130%*	*0.130%*	*0.130%*
of which: Countercyclical Capital Buffer	*0.011%*	*0.011%*	*0.011%*
OCR (TSCR+CBR)	**10.14%**	**11.64%**	**13.64%**

TSCR - Total SREP Capital Requirement
CBR - Combined Buffer Requirement
OCR - Overall Capital Requirement.

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 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 will be used and applied according to the roll-out plan submitted to the Supervisory authorities.

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 2019.

Tab. 4 – Capital requirements and Regulatory capital ratios

Regulatory Capital Requirements	Dec-19	Dec-18
Credit and Counterparty Risk	**3,618,890**	**3,674,032**
Standardised Approach	1,340,481	1,379,799
Advanced IRB Approach	2,278,409	2,294,234
Market Risks	**211,703**	**194,079**
Standardised Approach	211,703	194,079
Internal Models	-	-
Operational Risk	**825,620**	**764,998**
Foundation Approach	7,743	11,734
Standardised Approach	-	-
Advanced Approach	817,877	753,264
CVA Risk	**28,515**	**36,615**
Originary Exposure Method (OEM)	-	-
Standardised Approach	28,515	36,615
Advanced Approach	-	-
Concentration Risk	-	-
Settlement Risk	-	-
Regulatory Capital Requirements	**4,684,728**	**4,669,725**
Risk Weighted Assets	**58,559,094**	**58,371,557**
CET1 Capital Ratio	**14.72%**	**13.74%**
Tier1 Capital Ratio	**14.72%**	**13.74%**
Total Capital Ratio	**16.69%**	**15.21%**

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. Here follows the required information, according to the specified informative model in the Annex I of EBA Guidelines GL 2018/01 on uniform disclosure requirements of IFRS 9.

Tab. 4a – (EU IFRS9-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

		Dec-19	Sep-19	Jun-19	Mar-19
Available capital (amounts)					
1	Common Equity Tier 1 (CET1) capital	8,620,324	8,596,789	8,222,985	7,953,631
2	Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	7,450,340	7,327,907	6,954,205	6,685,108
3	Tier 1 capital	8,620,324	8,596,789	8,222,985	7,953,631
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	7,450,340	7,327,907	6,954,205	6,685,108
5	Total capital	9,774,660	9,751,013	9,079,513	8,813,312
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	8,604,676	8,482,131	7,810,734	7,544,789
Risk-weighted assets (amounts)					
7	Total risk-weighted assets	58,559,094	58,217,402	58,532,990	59,880,217
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	58,634,894	58,041,854	58,349,004	59,698,605
Capital Ratios					
9	Common Equity Tier 1 (as a percentage of risk exposure amount)	14.72%	14.77%	14.05%	13.28%
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	12.71%	12.63%	11.92%	11.20%
11	Tier 1 (as a percentage of risk exposure amount)	14.72%	14.77%	14.05%	13.28%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	12.71%	12.63%	11.92%	11.20%
13	Total capital (as a percentage of risk exposure amount)	16.69%	16.75%	15.51%	14.72%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	14.68%	14.61%	13.39%	12.64%
Leverage ratio					
15	Leverage ratio total exposure measure	141,097,698	140,537,131	139,206,895	141,650,938
16	Leverage ratio	6.11%	6.12%	5.91%	5.62%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5.29%	5.23%	5.01%	4.73%

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 201 bp and 202 bp, respectively of CET1 ratio and total capital ratio. Such coefficients would have resulted in 12.71% (instead of 14.72% transitional arrangements) and 14.68% (instead of 16.69%). 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-19	Sep-19	Dec-19	Sep-19
	1	**Credit risk (excluding CCR)**	**42,707,743**	**42,532,076**	**3,416,619**	**3,402,566**
Article 438 (c) (d)	2	Of which the standardised approach	14,616,764	14,818,043	1,169,341	1,185,443
Article 438, (c) (d)	3	Of which the foundation IRB (FIRB) approach	-	-	-	-
Article 438 (c) (d)	4	Of which the advanced IRB (AIRB) approach	28,090,978	27,714,033	2,247,278	2,217,123
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**	**1,676,881**	**1,929,997**	**134,151**	**154,400**
Article 438(c) (d)	7	Of which mark to market	701,206	822,640	56,096	65,811
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	14,039	17,746	1,123	1,420
Article 438 (c) (d)	12	Of which CVA	356,437	418,890	28,515	33,511
Article 438 (e)	13	**Settlement risk**	**-**	**-**	**-**	**-**
Article 449 (o) (i)	14	**Seecuritisation exposures in the banking book (after the cap)**	**155,863**	**176,286**	**12,469**	**14,103**
	15	Of which IRB approach	146,964	166,752	11,757	13,340
	16	Of which IRB supervisory formula approach (SFA)	-	-	-	-
	17	Of which internal assessment approach (IAA)	-	-	-	-
	18	Of which standardised approach	8,898	9,533	712	763
Article 438 (e)	19	**Market risk**	**2,646,285**	**2,743,657**	**211,703**	**219,493**
	20	Of which the standardised approach	2,646,285	2,743,657	211,703	219,493
	21	Of which IMA	-	-	-	-
Article 438 (e)	22	**Large exposures**	**-**	**-**	**-**	**-**
Article 438 (f)	23	**Operational risk**	**10,320,251**	**9,698,090**	**825,620**	**775,847**
	24	Of which basic indicator approach	96,790	102,062	7,743	8,165
	25	Of which standardised approach	-	-	-	-
	26	Of which advanced measurement approach	10,223,460	9,596,028	817,877	767,682
Article 437(2), Article 48 and 60	27	**Amounts below the thresholds for deduction (subject to 250% risk weight)**	**1,052,072**	**1,137,296**	**84,166**	**90,984**
Article 500	28	Floor adjustment	-	-	-	-
	29	**Total**	**58,559,094**	**58,217,402**	**4,684,728**	**4,657,392**

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 605,200 of RWA as at 31 December 2019.

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-19	Dec-18
	Requirements	Requirements
Standard Approach		
Standard Approach Total	**1,340,481**	**1,379,799**
of which: Counterparty Risk	*85,139*	*102,082*
IRB Approach		
IRB Approach Total	**2,278,409**	**2,294,234**
of which: Counterparty Risk	*19,374*	*24,054*
Total	**3,618,890**	**3,674,032**
of which: Counterparty Risk	***104,512***	***126,136***

The Capital Requirement for Counterparty Risk amounts to 104,512 €/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 Approach and the AIRB Approach in table 4.2.

Tab. 4.2 – Capital requirements for Credit and Counterparty Risk

Standard Approach	Dec-2019	Dec-2018
Exposures to central governments or central banks	139,689	158,959
Exposures to regional governments or local authorities	24,657	27,229
Exposures to public sector entities	28,966	31,153
Exposures to multilateral development banks	-	-
Exposures to International organisations	-	-
Exposures to institutions	161,965	165,328
Exposures to Corporates	266,280	306,277
Retail exposures	47,422	63,562
Exposures secured by mortgages on immovable property	44,566	45,260
Exposures in default	36,424	52,369
Exposures associated with high risk	39,754	75,255
Exposures in the form of covered bonds	6,843	7,019
Exposures to institutions and corporates with a short-term credit assessment	-	-
Exposures to collective investments undertaking	18,362	18,142
Equity exposures	179,493	149,775
Other exposures	344,224	278,541
Securitization positions	712	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	1,123	929
Total standardised approach	**1,340,481**	**1,379,799**
AIRB Approach		
Exposures to or secured by corporates:	1,578,584	1,636,008
- SMEs	717,067	817,559
- Other companies	740,363	704,933
- Specialized lending	121,154	113,515
Retail exposures:	688,067	645,744
- secured by real estate: SMEs	148,355	148,644
- secured by real estate: Individuals	292,365	206,366
- Qualifying revolving	597	652
- Other retail exposures: SMEs	223,332	262,880
- Other retail exposures: Individuals	23,418	27,202
Securitization positions	11,757	12,482
Total AIRB approach	**2,278,409**	**2,294,234**
Total Credit and Counterparty Risk	**3,618,890**	**3,674,032**

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-2019	Dec-2018
Category 1 - 50%	118	36
Category 1 - 70% equal to or greater than 2.5 years	9,787	1,672
Category 2 -70% less than 2.5 years	7,502	7,769
Category 2 - 90%	68,762	69,520
Category 3 - 115%	27,213	28,288
Category 4 - 250%	7,771	6,230
Category 5 - 0%	-	-
Total	**121,154**	**113,515**

Tab. 4.4 – Capital Requirements for Market Risk

Standardised Approach	Dec-2019	Dec-2018
Position risk on debt instruments	125,313	126,630
Position risk on equity	45,442	37,680
Foreign exchange risk	14,451	6,210
Commodities risk	9,960	8,402
CIU Risk	16,536	15,157
Total standardised approach	**211,703**	**194,079**
Internal models		
Total internal models	**-**	**-**
Total Market Risks	**211,703**	**194,079**

(*) The capital requirement included in Marekt Risk for securitisaiton positions in the Regulatory Trading Portfolio amount 17,675 (expressed in thousands of Euros) for 2019.

Tab. 4.5 – Capital requirements for Operational Risk

Requirements by approach	Dec-2019	Dec-2018
Foundation approach	7,743	11,734
Standardised approach	-	-
Advanced Measurement approach	817,877	753,264
Total Operational Risk	**825,620**	**764,998**

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 amounts	Capital requirements
1	**RWAs as of 30/09/2019**	27,880,785	2,230,463
9	**RWAs as of 31/12/2019**	**28,237,943**	**2,259,035**

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 amounts are net of the counterparty risk component.

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-2019
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)	762,122
Total RWAs	**1,879,910**

Countercyclical Capital Buffer

As of 31 December 2019, the Montepaschi Group is required to hold a countercyclical capital buffer of 6,441.5 €/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 0.011%. 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 2018 and the fourth quarter of 2019. 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 2019, 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 96.09% 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-2019
10	Total risk exposure amount (RWA)	58,559,094
20	Specific countercyclical coefficient of the institution	0.011%
30	Specific countercyclical capital buffer requirement of the institution	6,441.5

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	15,164,995	74,840,881	356,927	-	8,898	107,774	3,141,329	33,873	12,469	3,187,671	96.094%	0.000%
United Kingdom	38,473	17,317	3,371,415	-	-	-	3,479	1,635	-	5,115	0.154%	1.000%
Ireland	230,033	3,374	748,463	-	-	-	18,593	1,561	-	20,154	0.608%	1.000%
France	748,088	16,199	11,160	-	-	-	40,564	1,157	-	41,722	1.258%	0.250%
Czech republic	2,245	164	-	-	-	-	183	-	-	183	0.005%	1.500%
Slovakia	1,840	229	-	-	-	-	148	-	-	148	0.004%	1.500%
Sweden	67	897	235	-	-	-	38	19	-	56	0.002%	2.500%
Denmark	301	609	261	-	-	-	32	21	-	53	0.002%	1.000%
Norway	511	381	-	-	-	-	39	-	-	39	0.001%	2.500%
Hong kong	31	576	192	-	-	-	5	15	-	20	0.001%	2.000%
Iceland	732	-	-	-	-	-	51	-	-	51	0.002%	1.750%
Bulgaria	100	367	-	-	-	-	12	-	-	12	0.000%	0.500%
Lithuania	-	2	-	-	-	-	-	-	-	-	0.000%	1.000%
Other	1,301,100	71,997	126,800	-	-	-	47,948	14,034	-	61,982	1.863%	0.000%
Total	**17,488,515**	**74,952,993**	**4,615,453**	**-**	**8,898**	**107,774**	**3,252,420**	**52,316**	**12,469**	**3,317,205**	**99.994%**	**0.011%**

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	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	15,164,995	74,840,881	356,927	-	8,898	107,774	3,141,329	33,873	12,469	3,187,671	96.094%	0.000%
United Kingdom	38,473	17,317	3,371,415	-	-	-	3,479	1,635	-	5,115	0.154%	1.000%
Ireland	230,033	3,374	748,463	-	-	-	18,593	1,561	-	20,154	0.608%	1.000%
France	748,088	16,199	11,160	-	-	-	40,564	1,157	-	41,722	1.258%	0.250%
Spain	576,027	3,072	10,382	-	-	-	5,482	996	-	6,478	0.195%	0.000%
United states	92,976	14,953	75,987	-	-	-	7,517	6,103	-	13,621	0.411%	0.000%
Luxembourg	171,845	1,251	4,904	-	-	-	5,585	2,513	-	8,098	0.244%	0.000%
Germany	33,915	8,860	14,986	-	-	-	2,812	1,575	-	4,388	0.132%	0.000%
Belgium	43,998	2,284	372	-	-	-	3,396	30	-	3,426	0.103%	0.000%
Russian federation	36,927	2,183	147	-	-	-	2,824	12	-	2,835	0.085%	0.000%
Abu dhabi	39,884	1,957	-	-	-	-	1,287	-	-	1,287	0.039%	0.000%
Netherlands	15,619	2,982	9,464	-	-	-	1,249	2,009	-	3,258	0.098%	0.000%
China	25,993	1,334	222	-	-	-	1,871	18	-	1,889	0.057%	0.000%
Mexico	22,595	791	999	-	-	-	1,085	31	-	1,116	0.034%	0.000%
Algeria	21,183	25	-	-	-	-	1,688	-	-	1,688	0.051%	0.000%
Switzerland	4,739	14,389	32	-	-	-	537	171	-	708	0.021%	0.000%
Iraq	18,778	4	-	-	-	-	-	-	-	-	0.000%	0.000%
Turkey	16,344	82	-	-	-	-	942	-	-	942	0.028%	0.000%
Qatar	12,853	42	-	-	-	-	1,004	-	-	1,004	0.030%	0.000%
Brazil	9,743	812	-	-	-	-	589	0	-	589	0.018%	0.000%
Virgin islands, british	8,822	-	-	-	-	-	706	-	-	706	0.021%	0.000%
Romania	8,201	479	-	-	-	-	596	-	-	596	0.018%	0.000%
Portugal	5,832	213	2,772	-	-	-	461	44	-	505	0.015%	0.000%
Kazakhstan	7,442	85	-	-	-	-	595	-	-	595	0.018%	0.000%
Armenia	7,673	2	-	-	-	-	2	-	-	2	0.000%	0.000%
Cayman islands	6,103	-	438	-	-	-	488	35	-	523	0.016%	0.000%
Indonesia	6,608	92	-	-	-	-	401	-	-	401	0.012%	0.000%
Canada	5,299	698	347	-	-	-	430	28	-	458	0.014%	0.000%
Cuba	5,622	1	-	-	-	-	577	-	-	577	0.017%	0.000%
Kuwait	5,844	-	-	-	-	-	248	-	-	248	0.007%	0.000%
Tanzania, united republic of	5,594	208	-	-	-	-	123	-	-	123	0.004%	0.000%
Australia	4,370	969	-	-	-	-	311	-	-	311	0.009%	0.000%
Tunisia	4,667	398	-	-	-	-	393	-	-	393	0.012%	0.000%
Singapore	4,245	136	-	-	-	-	341	-	-	341	0.010%	0.000%
Poland	3,512	870	-	-	-	-	274	-	-	274	0.008%	0.000%
Korea, republic of	4,485	4	-	-	-	-	183	-	-	183	0.005%	0.000%
Egypt	3,945	101	-	-	-	-	372	-	-	372	0.011%	0.000%
Morocco	4,065	197	-	-	-	-	258	-	-	258	0.008%	0.000%
Austria	2,745	1,112	219	-	-	-	232	18	-	249	0.008%	0.000%
Argentina	4,324	209	-	-	-	-	16	-	-	16	0.000%	0.000%
Bangladesh	3,742	139	-	-	-	-	300	-	-	300	0.009%	0.000%
Maldives	4,035	-	-	-	-	-	198	-	-	198	0.006%	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	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												
Jordan	3,584	41	-	-	-	-	287	-	-	287	0.009%	0.000%
Monaco	128	3.286	-	-	-	-	82	-	-	82	0.002%	0.000%
Slovenia	3,121	266	-	-	-	-	24	-	-	24	0.001%	0.000%
Chile	3,063	0	-	-	-	-	166	-	-	166	0.005%	0.000%
Belarus	2,709	1	-	-	-	-	290	-	-	290	0.009%	0.000%
Pakistan	2,792	3	-	-	-	-	223	-	-	223	0.007%	0.000%
Hungary	2,728	71	-	-	-	-	219	-	-	219	0.007%	0.000%
San marino	1,445	1.178	-	-	-	-	121	-	-	121	0.004%	0.000%
Czech republic	2,245	164	-	-	-	-	183	-	-	183	0.005%	1.500%
Finland	218	98	1.920	-	-	-	18	154	-	171	0.005%	0.000%
Slovakia	1,840	229	-	-	-	-	148	-	-	148	0.004%	1.500%
Thailand	1,808	197	-	-	-	-	146	-	-	146	0.004%	0.000%
New zealand	1,328	442	-	-	-	-	26	-	-	26	0.001%	0.000%
Israel	930	459	233	-	-	-	61	19	-	80	0.002%	0.000%
Croatia	1,487	9	-	-	-	-	119	-	-	119	0.004%	0.000%
Jersey, c.i.	-	-	1.328	-	-	-	-	106	-	106	0.003%	0.000%
Japan	3	2	1.320	-	-	-	0	106	-	106	0.003%	0.000%
Peru	1,374	1	-	-	-	-	59	-	-	59	0.002%	0.000%
Lebanon	1,043	250	-	-	-	-	85	-	-	85	0.003%	0.000%
Malaysia	1,218	34	-	-	-	-	47	-	-	47	0.001%	0.000%
Sweden	67	897	235	-	-	-	38	19	-	56	0.002%	2.500%
Denmark	301	609	261	-	-	-	32	21	-	53	0.002%	1.000%
Serbia	160	1.023	-	-	-	-	7	-	-	7	0.000%	0.000%
Taiwan	696	1	278	-	-	-	56	22	-	78	0.002%	0.000%
Viet nam	966	-	-	-	-	-	79	-	-	79	0.002%	0.000%
Kenya	1,030	4	-	-	-	-	19	-	-	19	0.001%	0.000%
Mauritius	786	163	-	-	-	-	45	-	-	45	0.001%	0.000%
Paraguay	1,006	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Norway	511	381	-	-	-	-	39	-	-	39	0.001%	2.500%
South africa	375	119	343	-	-	-	1	27	-	28	0.001%	0.000%
Hong kong	31	576	192	-	-	-	5	15	-	20	0.001%	2.000%
Iceland	732	-	-	-	-	-	51	-	-	51	0.002%	1.750%
India	562	188	-	-	-	-	26	-	-	26	0.001%	0.000%
Benin	751	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Panama	521	86	-	-	-	-	43	-	-	43	0.001%	0.000%
Congo, democratic republic of	1	644	-	-	-	-	21	-	-	21	0.001%	0.000%
Malta	138	469	-	-	-	-	16	-	-	16	0.000%	0.000%
Saudi Arabia	550	3	-	-	-	-	12	-	-	12	0.000%	0.000%
Oman	323	175	-	-	-	-	26	-	-	26	0.001%	0.000%
Bosnia and herzegovina	501	-	-	-	-	-	18	-	-	18	0.001%	0.000%
Cyprus	325	134	-	-	-	-	32	-	-	32	0.001%	0.000%
Bulgaria	100	367	-	-	-	-	12	-	-	12	0.000%	0.500%

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	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												
Ghana	414	31	-	-	-	-	5	-	-	5	0.000%	0.000%
Venezuela	35	403	-	-	-	-	6	-	-	6	0.000%	0.000%
Colombia	372	16	-	-	-	-	30	-	-	30	0.001%	0.000%
Nigeria	206	153	-	-	-	-	19	-	-	19	0.001%	0.000%
Montenegro	323	-	-	-	-	-	26	-	-	26	0.001%	0.000%
Costa rica	318	-	-	-	-	-	25	-	-	25	0.001%	0.000%
Antigua and barbuda	1	346	-	-	-	-	2	-	-	2	0.000%	0.000%
Latvia	207	1	-	-	-	-	17	-	-	17	0.000%	0.000%
Philippines	150	59	-	-	-	-	12	-	-	12	0.000%	0.000%
Bermuda	156	-	-	-	-	-	12	-	-	12	0.000%	0.000%
Syrian arab republic	150	1	-	-	-	-	12	-	-	12	0.000%	0.000%
Macao	-	135	-	-	-	-	1	-	-	1	0.000%	0.000%
Brunei darussalam	-	125	-	-	-	-	2	-	-	2	0.000%	0.000%
Bahrain	102	-	-	-	-	-	8	-	-	8	0.000%	0.000%
Curacao	-	-	80	-	-	-	-	16	-	16	0.000%	0.000%
Uganda	1	97	-	-	-	-	1	-	-	1	0.000%	0.000%
Greece	41	15	27	-	-	-	4	2	-	6	0.000%	0.000%
Uruguay	90	4	-	-	-	-	0	-	-	-	0.000%	0.000%
Albania	4	89	-	-	-	-	1	-	-	1	0.000%	0.000%
Ethiopia	69	-	-	-	-	-	6	-	-	6	0.000%	0.000%
Cote d'ivoire	63	1	-	-	-	-	5	-	-	5	0.000%	0.000%
Sri lanka	59	1	-	-	-	-	5	-	-	5	0.000%	0.000%
Cameroon	-	63	-	-	-	-	1	-	-	1	0.000%	0.000%
Moldova, republic of	-	49	-	-	-	-	-	-	-	-	0.000%	0.000%
Iran (islamic republic of)	2	47	-	-	-	-	-	-	-	-	0.000%	0.000%
Mongolia	24	1	-	-	-	-	2	-	-	2	0.000%	0.000%
Ukraine	9	13	-	-	-	-	1	-	-	1	0.000%	0.000%
Chad	-	19	-	-	-	-	1	-	-	1	0.000%	0.000%
Palestinian territory, occupied	12	1	-	-	-	-	1	-	-	1	0.000%	0.000%
Libya	2	10	-	-	-	-	-	-	-	-	0.000%	0.000%
Holy see (vatican city state)	9	-	-	-	-	-	1	-	-	1	0.000%	0.000%
Sudan	6	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Gabon	-	7	-	-	-	-	-	-	-	-	0.000%	0.000%
Senegal	2	4	-	-	-	-	-	-	-	-	0.000%	0.000%
Dominican republic	2	3	-	-	-	-	-	-	-	-	0.000%	0.000%
Macedonia, the former yugoslav rep. of	1	3	-	-	-	-	-	-	-	-	0.000%	0.000%
Myanmar	-	3	-	-	-	-	-	-	-	-	0.000%	0.000%
Angola	-	3	-	-	-	-	-	-	-	-	0.000%	0.000%
Togo	2	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Azerbaijan	-	2	-	-	-	-	-	-	-	-	0.000%	0.000%
Estonia	-	2	-	-	-	-	-	-	-	-	0.000%	0.000%

Tab. 4.8.3.4 – 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												
Nepal	-	2	-	-	-	-	-	-	-	-	0.000%	0.000%
Yemen	-	2	-	-	-	-	-	-	-	-	0.000%	0.000%
Lithuania	-	2	-	-	-	-	-	-	-	-	0.000%	1.000%
Zambia	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Mauritania	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Rwanda	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Congo	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Georgia	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Bolivia	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
El salvador	-	1	-	-	-	-	-	-	-	-	0.000%	0.000%
Ecuador	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Eritrea	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Federal republic of somalia	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Honduras	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Guatemala	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Haiti	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Botswana	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Afghanistan	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Djibouti	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Turkmenistan	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Bahamas	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Cape verde	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Burundi	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Barbados	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Uzbekistan	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Puerto rico	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Isle of man	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Suriname	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Gambia	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Mozambique	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Zimbabwe	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Liechtenstein	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Saint lucia	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Marshall islands	-	-	-	-	-	-	-	-	-	-	0.000%	0.000%
Total	**17,488,515**	**74,952,993**	**4,615,453**	-	**8,898**	**107,774**	**3,252,420**	**52,316**	**12,469**	**3,317,205**	**100.00%**	

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 152% as at 31 December 2019 (190% as of 31/12/2018)[1], well above the minimum of 100% required for the year 2019.

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.

[1] *The comparative figure relating to the LCR index as at 31 December 2018 was restated to take into account a specific interpretative clarification provided by the supervisory authority.*

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-19 12	Jun-19 12	Sep-19 12	Dec-19 12	Mar-19 12	Jun-19 12	Sep-19 12	Dec-19 12
	High-quality liquid assets (HQLA)								
1	**Total high-quality liquid assets (HQLA)**					**19,873**	**21,421**	**23,041**	**24,978**
	Cash-Outflows								
2	Retail deposits and deposits from small business customers, of which:	45,290	45,578	46,260	47,038	2,902	2,926	2,982	3,043
3	*Stable deposits*	*36,435*	*36,598*	*36,959*	*37,386*	*1,822*	*1,830*	*1,848*	*1,869*
4	*Less stable deposits*	*8,855*	*8,981*	*9,301*	*9,651*	*1,080*	*1,097*	*1,134*	*1,173*
5	**Unsecured wholesale funding**	**20,253**	**19,763**	**19,253**	**19,870**	**6,710**	**6,637**	**6,999**	**7,701**
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	*14,435*	*13,335*	*10,557*	*9,174*	*3,413*	*3,144*	*2,478*	*2,152*
7	Non-operational deposits (all counterparties)	5,689	6,315	8,591	10,433	3,167	3,380	4,417	5,286
8	Unsecured debt	130	113	104	264	130	113	104	264
9	Secured wholesale funding					393	327	314	391
10	Additional requirements	3,406	3,450	3,448	3,447	701	729	743	848
11	Outflows related to derivative exposures and other collateral requirements	764	812	818	834	438	473	487	585
12	Outflows related to loss of funding on debt products	25	20	21	23	25	20	21	23
13	Credit and liquidity facilities	2,617	2,618	2,608	2,590	237	237	235	240
14	Other contractual funding	1,717	1,799	2,024	2,304	1,231	1,314	1,424	1,530
15	Other contingent funding obligations	1,706	3,274	8,556	13,917	558	642	819	1,051
16	**Total Cash Outflows**					**12,495**	**12,576**	**13,282**	**14,563**
	Cash – Inflows								
17	Secured lending (e.g. reverse repos)	3,771	3,201	3,164	3,511	73	42	34	46
18	Inflows from fully performing exposures	2,678	2,613	2,580	2,550	1,482	1,425	1,401	1,378
19	Other cash inflows	5,662	5,465	5,260	5,129	1,201	1,160	1,102	1,082
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					-	-	-	-
EU-19b	(Excess inflows from a related specialised credit institution)					-	-	-	-
20	**Total Cash Inflows**	12,112	11,279	11,005	11,190	2,757	2,628	2,538	2,506
EU-20a	Fully exempt inflows	-	-	-	-	-	-	-	-
EU-20b	Inflows subject to 90% cap	-	-	-	-	-	-	-	-
EU-20c	Inflows subject to 75% cap	12,112	11,279	11,005	11,190	2,757	2,628	2,538	2,586
21	**Liquidity Buffer**					**19,873**	**21,421**	**23,041**	**24,978**
22	**Total Net Cash Outflows**					**9,739**	**9,949**	**10,744**	**11,977**
23	**Liquidity Coverage Ratio (%)**					**204.81%**	**216.43%**	**216.87%**	**213.64%**

The Liquidity Coverage Ratio (LCR) is a short-term liquidity indicator used to assess the Group's liquidity profile. In 2019 the Group liquidity was characterized by the lack of signs of strain in the short term, with the LCR stable in the area of 200%, well above the minimum limit of 100% provided for by the EU Regulatory requirements and the Risk Tolerance set in the RAS 2019 (145%). The short-term liquidity indicator was maintained at levels that are largely above the regulatory levels despite the methodological changes made to the metric following the liquidity stress test conducted by ECB in the first half of 2019 (2019 LiST exercise), and thanks to a regained regularity of the access, in particular in the second half of the year, to the market of public issues reserved for institutional investors. The LCR was 152.4% as at 31 December 2019, higher than the minimum regulatory requirement for 2019 (100%), and down from December 2018 (190.2%). The trend of the regulatory liquidity indicator between 2018 and 2019 was affected by the approaching of the maturity date of the Notes with Government Guarantees (GGB). At the end of 2019 the Liquidity buffer mainly consist of Italian and European government bonds listed on regulated markets and easily liquidated in the short term. 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, with a considerable reduction expected for the end of the year. At the end of December 2019, in accordance with what is monitored through the Additional Liquidity Monitoring Metrics (ALMM) regulatory reporting, funding through unsecured channels amounts to roughly 69% of the total, of which 10% 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 15% of the total of non-financial non-retail counterparties (corresponding to 3% of the total funding obtained through unsecured channels).

The liquidity reserves in currencies other than the Euro, as well as the outflows and inflows in foreign currency, are marginal for the MPS Group and do not provoke currency misalignments in the LCR. Similarly, outflows on derivatives transtactions are not significant.

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.

To this end, Circular no. 285 of 17 December 2013 of the Bank of Italy, "supervisory Provisions for banks" requires banks to calculates their leverage ratio.

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 6.11% as at 31 December 2019. Using regulatory capital calculated by applying the rules established for full implementation, the ratio stands at 5.29%.

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 2018 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-19	Dec-18
1	Total assets as per published financial statements	133,200,119	131,286,707
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	1,491,015	1,739,749
5	Adjustments for securities financing transactions "SFTs"	1,311,026	1,688,383
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	7,424,739	13,863,268
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	-2,329,202	-3,269,423
8	**Total leverage ratio exposure**	**141,097,698**	**145,308,685**

"Other adjustments" includes 456,970 €/thousands 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-19	Dec-18
	On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	124,556,209	122,170,663
2	(Asset amounts deducted in determining Tier 1 capital)	-456,970	-1,801,693
3	**Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)**	**124,099,239**	**120,368,971**
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	1,257,221	1,583,294
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	1,491,015	1,739,749
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)	-935,966	-601,925
8	(Exempted CCP leg of client-cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	3,827,338	2,885,622
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-376,120	-464,181
11	**Total derivative exposures (sum of lines 4 to 10)**	**5,263,487**	**5,142,560**
	Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	2,999,206	4,245,504
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-	-
14	Counterparty credit risk exposure for SFT assets	1,311,026	1,688,383
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)**	**4,310,233**	**5,933,887**
	Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	34,744,247	45,529,727
18	(Adjustments for conversion to credit equivalent amounts)	-27,319,508	-31,666,459
19	**Other off-balance sheet exposures (sum of lines 17 to 18)**	**7,424,739**	**13,863,268**
	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	8,620,324	8,020,457
21	**Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)**	**141,097,698**	**145,308,685**
	Leverage ratio		
22	Leverage ratio	6.11%	5.52%
	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-19	Dec-18
EU-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	**123,508,840**	**121,464,950**
EU-2	Trading book exposures	7,261,267	5,721,014
EU-3	Banking book exposures, of which:	116,247,573	115,743,936
EU-4	*Covered bonds*	*829,546*	*862,142*
EU-5	*Exposures treated as sovereigns*	*24,717,070*	*24,422,092*
EU-6	*Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns*	*1,751,847*	*1,904,090*
EU-7	*Institutions*	*5,523,456*	*4,269,635*
EU-8	*Secured by mortgages of immovable properties*	*37,701,216*	*36,256,094*
EU-9	*Retail exposures*	*8,782,580*	*9,704,557*
EU-10	*Corporate*	*19,880,411*	*19,769,598*
EU-11	*Exposures in default*	*6,246,493*	*7,975,234*
EU-12	*Other exposures (eg equity, securitisations, and other non-credit obligation assets)*	*10,814,954*	*10,580,495*

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 2019. As at 31 December 2019, the Group recorded a slight growth in the financial leverage indicator linked to the increase in Tier 1 and to the decrease of total exposures respect to 31/12/2018.

5. Credit Risk

5.1 Credit Risk: general disclosure

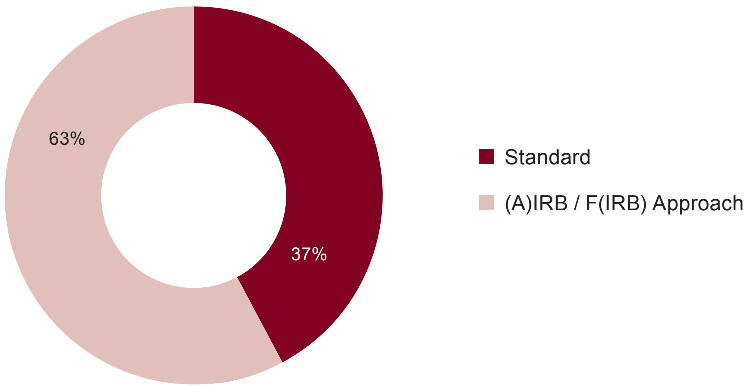
The MPS group gives special attention to the management and the measurement of Credit Risk, which represents the greatest risk to which the Group is exposed, accounting for approximately 77% of total capital requirements. The main objective of the Credit Risk Management function is to promote a culture 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.

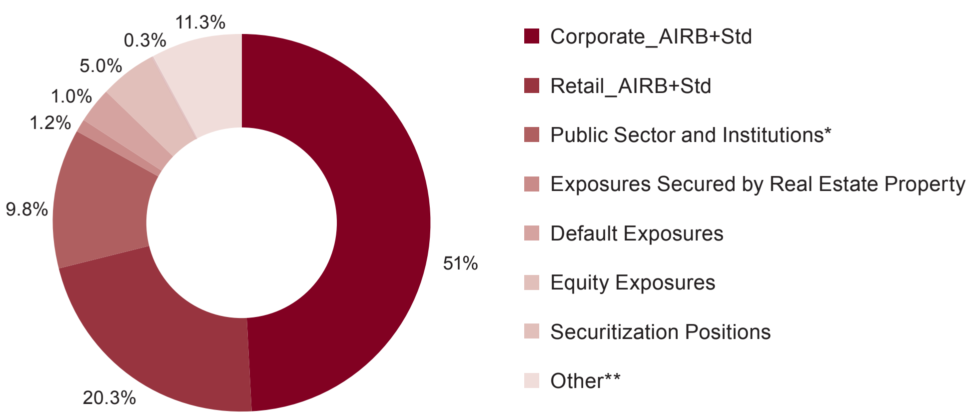
RWAs by credit risk show a prevalence of exposures treated under the advanced approach (63%) over those subject to the Standardised Approach (37%).

Credit Risk's RWAs by approach



An analysis by type of exposure reveals that 71% of Credit Risk refers to the Corporate and Retail portfolios. The remaining 29% is mainly concentrated in the Public Sector and Institutions (10%).

RWAs by type of exposure



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

** *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 guarantee fund, Other exposures*

The following table shows a breakdown of exposures and RWAs by approach (Standard/ AIRB) and by regulatory portfolio. 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-19		Dec-18			
	EAD	RWA	EAD	RWA	Δ EAD	Δ RWA
Standard Approach						
Total standard approach	**56,128,250**	**16,756,009**	**55,782,149**	**17,247,482**	**346,101**	**-491,474**
of which: Counterparty Risk	*3,301,542*	*1,064,236*	*4,440,817*	*1,276,020*	*-1,139,275*	*-211,784*
IRB approach						
Total IRB approach	**75,048,349**	**28,480,112**	**78,441,821**	**28,677,923**	**-3,393,473**	**-197,811**
of which: Counterparty Risk	*759,357*	*242,170*	*731,471*	*300,680*	*27,886*	*-58,510*
Total	**131,176,599**	**45,236,121**	**134,223,971**	**45,925,406**	**-3,047,372**	**-689,285**
of which: Counterparty Risk	*4,060,900*	*1,306,406*	*5,172,288*	*1,576,700*	*-1,111,388*	*-270,295*

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-19		Dec-18	
Standardised approach	EAD	RWA	EAD	RWA
Exposures to central governments or central banks	29,868,127	1,746,118	29,593,805	1,986,993
Exposures to regional governments or local authorities	1,542,472	308,211	1,697,018	340,362
Exposures to public sector entities	403,830	362,070	438,595	389,414
Exposures to multilateral development banks	111,402	-	103,787	-
Exposures to International organisations	-	-	-	-
Exposures to institutions	9,568,602	2,024,563	9,109,900	2,066,599
Exposures to corporates	3,467,782	3,328,505	3,884,165	3,828,461
Retail exposures	858,019	592,771	1,143,632	794,527
Exposures secured by mortgages on immovable property	1,477,102	557,071	1,498,839	565,747
Exposures in default	424,348	455,305	589,509	654,617
Exposures associated with high risk	331,285	496,928	627,127	940,690
Exposures in the form of covered bonds	705,148	85,542	720,835	87,741
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-
Exposures to collective investments undertakings	229,524	229,524	226,772	226,772
Equity exposures	1,115,714	2,243,660	1,008,960	1,872,189
Other exposures	6,015,995	4,302,804	5,139,204	3,481,757
Securitization positions	8,898	8,898	-	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	14,039	-	11,614
Total standardised approach	**56,128,250**	**16,756,009**	**55,782,149**	**17,247,482**
AIRB approach				
Exposures to or secured by corporates:	31,169,669	19,732,305	33,324,171	20,450,103
- SMEs	16,731,364	8,963,341	18,921,695	10,219,492
- Other companies	12,613,289	9,254,542	12,595,157	8,811,667
- Specialized lending	1,825,016	1,514,422	1,807,318	1,418,943
Retail exposures:	43,783,366	8,600,843	44,974,350	8,071,795
- secured by real estate: SMEs	5,801,907	1,854,434	5,466,283	1,858,045
- secured by real estate: Individuals	27,907,035	3,654,559	25,957,497	2,579,577
- Qualifying revolving	93,584	7,469	91,966	8,148
- Other retail exposures: SMEs	8,252,376	2,791,655	10,375,638	3,286,005
- Other retail exposures: Individuals	1,728,465	292,725	3,082,967	340,019
- Securitization positions	95,314	146,964	143,301	156,025
Total AIRB approach	**75,048,349**	**28,480,112**	**78,441,821**	**28,677,923**
Total Credit and Counterparty Risk	**131,176,599**	**45,236,121**	**134,223,971**	**45,925,406**

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:	31,169,669	33,191,194
4	*of which Specialized lending-Slotting criteria*	*1,825,016*	*1,866,218*
5	of which SME	16,731,364	18,188,571
	of which Other companies	12,613,289	13,136,406
6	Retail exposures:	43,783,366	44,371,703
7	- secured by real estate	33,708,942	32,044,055
8	*secured by real estate: SMEs*	*5,801,907*	*5,382,746*
9	*secured by real estate: Individuals*	*27,907,035*	*26,661,310*
10	- Qualifying revolving	93,584	83,861
11	- Other retail exposures	9,980,840	12,243,787
12	*Other retail exposures: SMEs*	*8,252,376*	*9,492,483*
13	*Other retail exposures: Individuals*	*1,728,465*	*2,751,304*
	Securitization positions	95,314	114,860
15	**Total AIRB approach**	**75,048,349**	**77,677,757**
16	Exposures to central governments or central banks	29,868,127	28,568,466
17	Exposures to regional governments or local authorities	1,542,472	1,670,866
18	Exposures to public sector entities	403,830	442,070
19	Exposures to multilateral development banks	111,402	111,333
20	Exposures to international organisations	-	-
21	Exposures to institutions	9,568,602	9,383,318
22	Exposures to corporates	3,467,782	3,324,387
24	Retail exposures	858,019	972,580
26	Exposures secured by mortgages on immovable property	1,477,102	1,464,436
28	Exposures in default	424,348	514,530
29	Exposures associated with particularly high risk	331,285	448,253
30	Exposures in the form of covered bonds	705,148	713,812
31	Exposures to institutions and corporates with a short-term credit assessment	-	-
32	Exposures to collective invesments undertakings	229,524	222,564
33	Equity exposures	1,115,714	1,049,284
34	Other exposures	6,015,995	5,897,812
	Securitization positions	8,898	9,616
	Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-
35	**Total standardised approach**	**56,128,250**	**54,793,328**
36	**Total**	**131,176,599**	**132,471,086**

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

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	29,344,652	-	-	29,344,652
4	Retail	43,783,366	-	-	43,783,366
5	Equity	-	-	-	-
6	**Total IRB approach**	**73,128,019**	**-**	**-**	**73,128,019**
7	Central governments or central banks	27,610,030	-	626	27,610,657
8	Regional governments or local authorities	1,542,472	-	-	1,542,472
9	Public sector entities	401,096	-	-	401,096
10	Multi-lateral development banks	111,402	-	-	111,402
11	International Organisations	-	-	-	-
12	Institutions	9,378,421	-	60,746	9,439,167
13	Corporates	3,208,185	-	37,246	3,245,431
14	Retail	704,673	-	-	704,673
15	Secured by mortgages on immovable property	1,239,826	-	-	1,239,826
16	Exposures in Default	376,894	-	-	376,894
17	Items associated with particularly high-risk	331,285	-	-	331,285
18	Covered bonds	705,148	-	-	705,148
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-
20	Collective investments undertakings	229,524	-	-	229,524
21	Equity Exposures	861,182	-	-	861,182
22	Other Exposures	5,886,371	-	810	5,887,181
23	**Total standardised approach**	**52,586,510**	**-**	**99,429**	**52,685,939**
24	**Total**	**125,714,528**	**-**	**99,429**	**125,813,958**

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.

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

		Net exposure value					
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks	-	-	-	-	-	-
2	Institutions	-	-	-	-	-	-
3	Corporates	-	-	42,543,823	-	-	42,543,823
4	Retail	-	49,800,507	-	-	-	49,800,507
5	Equity	-	-	-	-	-	-
6	**Total IRB approach**	**-**	**49,800,507**	**42,543,823**	**-**	**-**	**92,344,330**
7	Central governments or central banks	-	-	-	-	24,795,161	24,795,161
8	Regional governments or local authorities	-	-	-	-	2,268,166	2,268,166
9	Public sector entities	-	-	-	-	695,523	695,523
10	Multilateral development banks	-	-	-	-	126,402	126,402
11	International organisations	-	-	-	-	-	-
12	Institutions	-	-	-	-	40,104,725	40,104,725
13	Corporates	-	-	-	-	6,108,193	6,108,193
14	Retail	-	-	-	-	1,943,722	1,943,722
15	Secured by mortgages on immovable property	-	-	-	-	1,527,862	1,527,862
16	Exposures in default	-	-	-	-	621,796	621,796
17	Items associated with particularly high risk	-	-	-	-	370,208	370,208
18	Covered bonds	-	-	-	-	705,148	705,148
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
20	Collective investments undertaking	-			-	444,617	444,617
21	Equity exposures	-	-	-	-	1,115,714	1,115,714
22	Other exposures	-	-	-	-	6,001,896	6,001,896
23	**Total standardised approach**	**-**	**-**	**-**	**-**	**86,829,134**	**86,829,134**
24	**Total**	**-**	**49,800,507**	**42,543,823**	**-**	**86,829,134**	**179,173,464**

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

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.

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 and local authorities		
Exposures to multilateral development banks		
Exposures to International organisations		
Exposures to Supervised institutions		
Exposures to corporates and other persons		
Exposures to undertakings for collective investment in transferable securities (UCITS)		
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 mitigation 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-19			Dec-18		
	Ante CRM Exposure	Post CRM Exposure	Credit Risk Mitigation Techniques	Ante CRM Exposure	Post CRM Exposure	Credit Risk Mitigation Techniques
Exposures to central governments or central banks	29,994,417	29,994,417	-	29,713,332	29,713,332	-
Exposures to regional governments or local authorities	2,302,900	2,302,900	-	2,850,392	2,850,392	-
Exposures to public sector entities	654,231	639,387	-14,844	721,429	706,576	-14,853
Exposures to multilateral development banks	126,402	126,402	-	148,787	148,787	-
Exposures to international organisations	-	-	-	-	-	-
Exposures to institutions	40,996,762	12,406,244	-28,590,518	52,291,775	14,472,631	-37,819,144
Exposures to corporates	5,962,470	5,305,353	-657,117	7,162,617	6,179,496	-983,121
Retail exposures	1,888,520	1,852,477	-36,043	2,283,596	2,258,302	-25,294
Exposures secured by mortgages on immovable property	1,482,948	1,482,928	-20	1,502,687	1,501,254	-1,433
Exposures in default	618,177	612,426	-5,751	823,301	818,604	-4,696
Exposures associated with particularly high risk	370,168	367,909	-2,258	691,306	689,064	-2,242
Exposures in the form of covered bonds	705,148	705,148	-	720,835	720,835	-
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Exposures to collective investments undertakings	444,617	303,701	-140,916	270,428	269,153	-1,275
Equity exposures	1,115,714	1,115,714	-	1,008,960	1,008,960	-
Other exposures	6,016,015	6,016,015	-	5,139,222	5,139,222	-
Items representing securitization positions	8,898	8,898	-	-	-	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-
Total standardised approach	**92,687,387**	**63,239,920**	**-29,447,468**	**105,328,666**	**66,476,608**	**-38,852,058**

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 2019, the total amount of exposures deducted from Funds came to EUR 582.6 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	28,559,283	-	-	25,226	983,510	-	300,108	-	29,868,127
Exposures to regional governments or local authorities	-	1,542,472	-	-	-	-	-	-	1,542,472
Exposures to public sector entities	2,734	48,783	-	-	352,311	1	-	-	403,830
Exposures to multilateral development banks	111,402	-	-	-	-	-	-	-	111,402
Exposures to international organisations	-	-	-	-	-	-	-	-	-
Exposures to institutions	69,023	7,742,885	-	1,549,540	190,266	16,889	-	-	9,568,602
Exposures to corporates	-	24,119	-	51,837	3,360,595	31,230	-	-	3,467,782
Retail exposures	-	-	-	-	858,019	-	-	-	858,019
Exposures secured by mortgages on immovable property	-	-	1,048,931	428,171	-	-	-	-	1,477,102
Exposures in default	-	-	-	-	362,435	61,913	-	-	424,348
Exposures associated with particularly high risk	-	-	-	-	-	331,285	-	-	331,285
Exposures in the form of covered bonds	-	702,142	-	3,006	-	-	-	-	705,148
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
Exposures to collective investments undertaking	-	-	-	-	229,524	-	-	-	229,524
Equity exposures	-	-	-	-	363,750	-	751,964	-	1,115,714
Other exposures	918,009	996,476	-	364	4,096,783	4,363	-	-	6,015,995
Items representing securitization positions	-	-	-	-	8,898	-	-	-	8,898
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-	-	-	-
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**
Total as at 31/12/2018	**29,416,632**	**10,262,926**	**1,029,098**	**2,544,282**	**10,677,282**	**811,909**	**1,040,020**	**-**	**55,782,149**

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).

Tab. 5.2.3 (EU CR5) – Standardised approach

	Regulatory portfolio (Standard Approach)	Classes of credit worthiness (Weighting Factors)															Total	Without rating
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	225-250%	370%	1250%	Deducted		
1	Central governments or central banks	28,558,451	-	-	-	-	-	25,226	-	-	980,740	-	300,108	-	-	404,493	29,864,525	-
2	Regional governments or local authorities	-	-	-	-	1,530,241	-	-	-	-	-	-	-	-	-		1,530,241	-
3	Public sector entities	2,734	-	-	-	48,783	-	-	-	-	346,362	-	-	-	-		397,880	-
4	Multilateral development banks	111,402	-	-	-	-	-	-	-	-	-	-	-	-	-		111,402	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
6	Institutions	69,023	1,783,766	50,121	-	4,070,400	-	406,148	-	-	179,382	16,889	-	-	-		6,575,728	-
7	Corporates	-	-	-	-	24,119	-	51,837	-	-	3,118,138	31,230	-	-	-		3,225,324	-
8	Retail	-	-	-	-	-	-	-	-	857,946	-	-	-	-	-		857,946	-
9	Secured by mortgages on immovable property	-	-	-	-	-	1,048,931	428,171	-	-	-	-	-	-	-		1,477,102	-
10	Exposures in default	-	-	-	-	-	-	-	-	-	362,398	61,910	-	-	-		424,308	-
11	Higher-risk categories	-	-	-	-	-	-	-	-	-	-	331,285	-	-	-		331,285	-
12	Covered bonds	-	-	-	563,893	138,249	-	3,006	-	-	-	-	-	-	-		705,148	-
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
14	Collective investment undertakings	-	-	-	-	-	-	-	-	-	185,211	-	-	-	-		185,211	-
15	Equity	-	-	-	-	-	-	-	-	-	363,750	-	751,964	-	-	112,453	1,115,714	-
16	Other items	918,009	-	-	-	996,476	-	364	-	-	4,096,783	4,363	-	-	-		6,015,995	-
17	**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**	**445,677**	**1,052,072**	**-**	**-**	**516,945**	**52,817,810**	**-**
18	**Total as at 31/12/2018**	**29,416,023**	**782,085**	**161,266**	**564,264**	**6,246,782**	**1,029,098**	**879,869**	**-**	**1,143,632**	**9,266,392**	**811,900**	**1,040,020**	**-**	**-**	**1,849,038**	**51,341,332**	**-**

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.

5.3 Credit Risk: use of the AIRB approach

AIRB Authorization

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 Lending Risk Officer Area is responsible, within the Chief Risk Officer Division, for the development of internal rating models and it is separate from the structures responsible for granting financing (it.: *Direzioni Commerciali*). 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 promotes and shares operational and methodological aspects to identify possible synergies in control activities carried out by second and third-level Functions, coordinate 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', 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.

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.

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

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.

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 one LGD model (differentiated by geographical area, type of loan, type of guarantee, guarantee coverage ratio and exposure at default) 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, and subjected to review in the course of last year, 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 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. 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. 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.

- **Model segmentation**

The retail portfolio was segmented drawing a distinction between jointly liable individuals and individual natural persons. The criteria were selected on the basis of the risk profile associated to the cluster and internal historical records.

- **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' 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 of RWAs 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.

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 downturn 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 Monpeaschi 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 internal rating System 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 2019 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 2019. 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-19			
Regulatory Portfolio	EAD	RWA	PA	PE
Exposures to or secured by corporates:	**31,169,669**	**19,732,305**	**3,529,295**	**3,930,743**
- SMEs	16,731,364	8,963,341	2,421,943	2,744,080
- Other companies	12,613,289	9,254,542	970,701	1,039,453
- Specialized lending	1,825,016	1,514,422	136,651	147,211
Retail exposures:	**43,783,366**	**8,600,843**	**2,402,185**	**2,491,488**
- Secured by real estate: SMEs	5,801,907	1,854,434	654,355	558,566
- Secured by real estate: Individuals	27,907,035	3,654,559	492,304	460,769
- Qualifying revolving	93,584	7,469	365	657
- Other retail exposures: SMEs	8,252,376	2,791,655	1,058,065	1,195,810
- Other retail exposures: Individuals	1,728,465	292,725	197,096	275,686
Securitization positions	**95,314**	**146,964**	**-**	**-**
Total as at 31/12/2019	**75,048,349**	**28,480,112**	**5,931,480**	**6,422,232**
Total as at 31/12/2018	**78,441,822**	**28,677,923**	**8,174,377**	**9,300,183**

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-19				
Classe di PD	Corporates Exposure	Retail Exposure	AIRB Total Exposures	AIRB Total EL	AIRB Total AL
Class 01					
Class 02	168,950	16,702	185,652	24	213
Class 03	168,610	79,358	247,968	51	169
Class 04	421,587	128,442	550,028	194	421
Class 05	812,763	7,387,855	8,200,617	1,711	1,638
Class 06	1,124,817	5,314,765	6,439,581	2,477	2,666
Class 07	2,426,635	4,146,647	6,573,282	5,034	5,182
Class 08	3,212,405	3,187,584	6,399,989	7,898	5,536
Class 09	2,624,755	4,703,359	7,328,115	12,890	9,284
Class 10	3,255,439	4,845,814	8,101,253	22,773	16,955
Class 11	2,460,060	2,499,242	4,959,302	24,293	22,736
Class 12	1,865,536	2,018,453	3,883,989	29,735	30,552
Class 13	2,360,308	2,085,978	4,446,286	55,956	108,589
Class 14	1,009,178	999,611	2,008,789	36,665	71,050
Class 15	471,511	507,591	979,103	29,762	56,618
Class 16	193,418	284,938	478,355	22,021	30,219
Class 17	112,961	132,902	245,863	14,141	17,578
Class 18	278,111	101,393	379,503	45,282	38,530
Class 19	43,150	64,799	107,949	11,462	9,625
Class 20	6,334,460	5,277,934	11,612,393	5,472,460	5,847,460
Total as at 31/12/2019	**29,344,652**	**43,783,366**	**73,128,019**	**5,794,829**	**6,275,021**
Total as at 31/12/2018	**31,516,852**	**44,974,350**	**76,491,202**	**7,983,504**	**9,051,731**

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)

	Finanziamenti specializzati - slotting criteria					
Rating Class	Nominal Value	Exposure Value	Off-balance-sheet amount	RWA	Value adjustments	Expected Loss
Category 1 - 50%	2,956	2,956	-	1,478	-	-
Category 1 - 70% equal to or greater than 2.5 years	176,620	174,775	3,690	122,343	418	699
Category 2 -70% less than 2.5 years	187,946	133,962	69,761	93,773	104	536
Category 2 - 90%	1,058,307	955,028	207,859	859,525	5,047	7,640
Category 3 - 115%	309,502	295,792	28,879	340,161	12,853	8,282
Category 4 - 250%	40,007	38,857	2,150	97,142	1,862	3,109
Category 5 - 0%	227,313	223,647	7,224	-	126,926	116,386
Total as at 31/12/2019	**2,002,651**	**1,825,016**	**319,562**	**1,514,422**	**147,211**	**136,651**
Total as at 31/12/2018	**2,002,354**	**1,807,318**	**348,488**	**1,418,943**	**245,762**	**190,873**

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	165,482	162,439	46,618	120,235	3.67%	112	0.03%	38.09%	3,18	11.62%	38	5	5,416
Class 03	329,902	323,105	86,163	255,359	7.21%	291	0.05%	40.24%	2,63	14.12%	53	17	12,164
Class 04	609,226	593,237	249,686	369,759	7.09%	596	0.09%	38.09%	2,61	18.80%	206	86	46,947
Class 05	781,574	765,818	337,406	466,933	8.25%	650	0.13%	38.88%	2,71	24.45%	524	171	82,512
Class 06	1,116,830	1,092,956	565,814	579,133	8.98%	886	0.20%	37.25%	2,73	29.55%	610	422	167,173
Class 07	1,825,932	1,772,430	1,044,401	818,549	11.06%	1,326	0.30%	38.24%	2,69	38.76%	2,447	1,198	404,773
Class 08	1,645,106	1,605,572	1,059,621	606,356	9.96%	1,242	0.46%	34.00%	3,07	42.93%	1,617	1,657	454,916
Class 09	1,832,357	1,774,026	1,215,370	646,513	13.59%	1,661	0.69%	35.20%	2,84	50.62%	2,781	2,952	615,170
Class 10	2,200,617	2,119,382	1,589,858	593,965	10.85%	1,926	1.05%	35.60%	2,95	61.76%	5,854	5,943	981,828
Class 11	2,059,417	1,981,813	1,598,414	445,640	13.97%	1,855	1.59%	32.98%	3,28	67.77%	9,308	8,383	1,083,192
Class 12	1,650,704	1,604,742	1,318,763	330,147	13.38%	1,449	2.42%	31.63%	3,33	71.69%	9,951	10,094	945,414
Class 13	1,797,032	1,756,721	1,525,379	288,863	19.91%	1,484	3.99%	32.11%	3,36	82.67%	42,318	19,543	1,260,970
Class 14	874,717	852,847	775,730	105,251	26.73%	725	6.31%	29.60%	3,64	87.88%	30,032	14,486	681,682
Class 15	407,780	394,987	363,457	48,581	35.10%	390	9.95%	32.07%	3,07	107.44%	19,928	11,597	390,490
Class 16	162,368	156,554	142,638	17,411	20.08%	227	16.03%	30.99%	3,08	124.37%	9,309	7,086	177,403
Class 17	116,263	113,331	108,454	5,060	3.59%	82	22.12%	28.67%	3,77	136.05%	7,842	6,878	147,547
Class 18	57,941	57,297	56,599	698	0.00%	41	31.63%	33.98%	4,43	184.36%	8,869	6,083	104,343
Class 19	44,789	44,513	40,844	4,599	20.22%	44	45.00%	24.99%	4,45	117.87%	4,000	4,593	48,141
Class 20	4,939,771	4,828,052	4,606,149	319,032	30.44%	2,643	100.00%	49.54%	2,10	29.38%	2,588,393	2,320,749	1,353,262
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**
Total as at 31/12/2018	**25,125,450**	**24,476,897**	**18,921,695**	**6,315,327**	**10.51%**	**18,733**	**3.11%**	**34.12%**	**2,85**		**4,167,935**	**3,589,184**	**10,219,492**

For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds. 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	450,745	450,745	122,332	438,357	25.08%	33	0.03%	44.32%	2,93	17.04%	160	16	20,839
Class 03	293,069	292,715	82,447	227,496	7.57%	71	0.05%	44.55%	2,30	18.95%	53	18	15,627
Class 04	645,342	645,007	171,900	518,701	8.79%	151	0.09%	40.19%	2,27	23.03%	116	62	39,593
Class 05	1,516,447	1,516,447	475,356	1,223,918	14.94%	233	0.13%	44.41%	2,38	35.12%	492	274	166,963
Class 06	1,572,808	1,569,741	559,003	1,193,550	15.32%	277	0.20%	43.38%	2,42	43.73%	1,215	485	244,452
Class 07	3,261,625	3,261,096	1,382,234	2,070,285	9.25%	515	0.30%	43.25%	2,51	54.69%	1,418	1,793	755,948
Class 08	4,100,812	4,097,098	2,152,784	2,406,906	19.22%	445	0.46%	36.40%	2,32	56.40%	2,177	3,604	1,214,113
Class 09	2,499,166	2,497,430	1,409,386	1,275,623	14.70%	444	0.69%	43.90%	2,31	79.34%	2,569	4,269	1,118,187
Class 10	2,990,987	2,979,690	1,665,582	1,612,953	18.53%	556	1.05%	42.85%	1,93	86.59%	4,060	7,493	1,442,215
Class 11	1,386,875	1,381,579	861,646	587,578	11.51%	315	1.59%	41.99%	2,08	98.94%	2,921	5,753	852,552
Class 12	796,447	789,256	546,772	290,274	16.46%	284	2.42%	42.29%	2,12	114.31%	3,144	5,596	625,041
Class 13	1,126,387	1,125,902	834,929	371,934	21.77%	268	3.99%	42.33%	2,05	131.61%	14,030	14,100	1,098,825
Class 14	370,169	368,189	233,449	174,876	22.95%	104	6.31%	27.86%	1,20	97.49%	3,840	4,104	227,580
Class 15	152,406	151,647	108,054	48,567	10.24%	53	9.95%	38.31%	1,89	165.19%	10,506	4,119	178,493
Class 16	60,544	60,544	50,779	11,370	14.12%	31	16.03%	38.69%	2,43	203.62%	4,211	3,149	103,399
Class 17	7,813	7,813	4,507	3,358	1.54%	18	22.12%	40.21%	3,01	222.68%	663	401	10,036
Class 18	338,483	338,483	221,512	132,384	11.64%	7	31.63%	45.66%	4,55	285.30%	22,318	31,990	631,984
Class 19	2,314	2,314	2,306	8	0.00%	4	45.00%	36.61%	2,86	201.06%	196	380	4,637
Class 20	2,137,106	2,135,416	1,728,311	618,177	34.14%	373	100.00%	50.91%	1,85	29.16%	965,364	883,094	504,057
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**
Total as at 31/12/2018	**24,417,824**	**24,365,220**	**12,595,157**	**13,871,195**	**14.35%**	**4,193**	**1.62%**	**41.03%**	**2,29**		**1,278,004**	**1,224,948**	**8,811,667**

For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds. 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	1,942	1,942	1,862	99	20.00%	11	0.03%	20.92%	-	1.56%	1	0	29
Class 03	12,661	12,661	12,661	-	0.00%	55	0.05%	19.30%	-	2.19%	6	1	277
Class 04	23,466	23,110	21,341	3,538	50.00%	163	0.09%	17.91%	-	3.23%	9	3	689
Class 05	48,473	48,473	45,049	4,353	21.36%	324	0.13%	18.58%	-	4.39%	23	11	1,977
Class 06	103,455	102,239	100,165	4,065	48.99%	688	0.20%	19.38%	-	6.37%	54	39	6,383
Class 07	194,790	192,732	192,181	905	39.10%	1,431	0.30%	19.55%	-	8.71%	157	113	16,746
Class 08	288,191	286,962	286,694	412	35.01%	2,051	0.46%	19.58%	-	12.05%	336	258	34,557
Class 09	484,665	481,565	479,501	3,775	45.32%	3,258	0.69%	19.86%	-	16.15%	776	657	77,429
Class 10	667,626	664,708	663,597	1,843	39.68%	4,554	1.05%	19.87%	-	21.50%	1,671	1,385	142,664
Class 11	744,864	741,839	739,288	3,217	20.70%	4,890	1.59%	19.83%	-	27.85%	2,783	2,331	205,917
Class 12	644,793	638,136	633,749	7,425	40.91%	4,116	2.42%	20.01%	-	36.75%	4,612	3,069	232,889
Class 13	577,724	574,808	572,756	3,021	32.08%	3,150	3.99%	19.86%	-	48.10%	12,902	4,539	275,496
Class 14	318,210	312,140	311,094	1,563	33.05%	1,662	6.31%	19.85%	-	61.15%	9,320	3,896	190,233
Class 15	136,298	135,828	135,775	94	43.90%	662	9.95%	19.91%	-	74.40%	5,638	2,689	101,015
Class 16	86,474	85,868	85,553	333	5.46%	444	16.03%	20.69%	-	93.06%	4,320	2,838	79,617
Class 17	40,783	40,496	40,489	13	50.00%	198	22.12%	19.50%	-	91.72%	2,476	1,747	37,137
Class 18	33,110	32,993	32,843	300	50.00%	148	31.63%	19.74%	-	94.18%	2,172	2,051	30,931
Class 19	23,673	23,615	23,604	11	0.00%	126	45.00%	19.75%	-	87.12%	1,656	2,098	20,563
Class 20	1,434,935	1,429,104	1,423,703	9,302	41.93%	5,768	100.00%	41.74%	-	28.09%	509,654	626,631	399,885
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**
Total as at 31/12/2018	**5,529,427**	**5,505,381**	**5,466,283**	**63,928**	**42.17%**	**31,805**	**3.33%**	**19.99%**	**0,00**		**392,908**	**342,975**	**1,858,045**

For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds. 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	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 03	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 04	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 05	7,314,227	7,094,073	7,092,188	3,770	50.00%	84,408	0.13%	12.43%	-	3.83%	461	1,146	271,315
Class 06	5,316,573	4,848,459	4,848,138	585	45.30%	61,394	0.20%	12.98%	-	5.52%	510	1,259	267,737
Class 07	3,605,593	3,383,298	3,383,061	447	46.99%	42,093	0.30%	12.60%	-	7.22%	615	1,279	244,309
Class 08	2,419,810	2,290,487	2,290,028	910	49.54%	30,241	0.46%	12.50%	-	9.74%	589	1,317	223,085
Class 09	3,459,093	3,357,007	3,356,819	377	50.00%	44,905	0.69%	11.60%	-	11.99%	1,435	2,686	402,391
Class 10	3,195,252	3,145,907	3,145,532	750	50.00%	41,078	1.05%	11.30%	-	15.51%	2,003	3,733	487,805
Class 11	734,189	715,854	715,585	514	47.63%	10,428	1.59%	12.03%	-	21.60%	1,719	1,369	154,564
Class 12	360,262	351,911	351,812	198	50.00%	5,002	2.42%	11.76%	-	27.35%	2,219	1,002	96,228
Class 13	578,340	570,925	569,636	1,290	0.07%	6,917	3.99%	12.08%	-	37.40%	12,597	2,745	213,021
Class 14	174,738	172,241	172,127	131	13.06%	2,206	6.31%	11.76%	-	46.15%	4,559	1,278	79,439
Class 15	108,062	107,173	107,173	-	0.00%	1,362	9.95%	11.50%	-	55.26%	3,178	1,226	59,225
Class 16	81,499	80,982	80,982	-	0.00%	1,037	16.03%	11.43%	-	64.68%	2,648	1,484	52,376
Class 17	41,761	41,402	41,399	7	50.00%	531	22.12%	11.29%	-	68.47%	1,449	1,034	28,346
Class 18	36,854	36,625	36,625	-	0.00%	421	31.63%	12.41%	-	76.64%	1,308	1,438	28,069
Class 19	20,843	20,807	20,807	-	0.00%	277	45.00%	10.88%	-	61.60%	728	1,019	12,816
Class 20	1,703,408	1,699,145	1,695,122	4,066	1.05%	16,227	100.00%	23.55%	-	60.99%	424,752	468,291	1,033,835
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**
Total as at 31/12/2018	**26,763,559**	**25,968,946**	**25,957,497**	**14,545**	**37.29%**	**327,654**	**0.92%**	**11.63%**	**0,00**		**204,642**	**131,639**	**2,579,577**

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

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

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	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 03	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 04	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 05	51,827	51,827	23,924	27,903	0.00%	35,710	0.13%	22.03%	-	1.75%	9	7	418
Class 06	22,323	22,323	10,460	11,864	0.00%	15,108	0.20%	27.38%	-	3.10%	6	6	324
Class 07	30,077	30,077	12,647	17,430	0.00%	17,233	0.30%	22.88%	-	3.60%	10	9	455
Class 08	15,753	15,753	6,778	8,975	0.00%	8,003	0.46%	25.84%	-	5.72%	7	8	388
Class 09	17,647	17,647	8,693	8,954	0.00%	10,182	0.69%	22.45%	-	6.84%	16	13	594
Class 10	15,412	15,412	9,469	5,944	0.00%	10,310	1.05%	22.17%	-	9.34%	34	22	884
Class 11	9,535	9,535	6,450	3,085	0.00%	6,908	1.59%	23.01%	-	13.24%	41	24	854
Class 12	7,112	7,112	4,844	2,268	0.00%	5,330	2.42%	22.51%	-	17.60%	48	26	853
Class 13	3,856	3,856	2,735	1,121	0.00%	2,953	3.99%	24.64%	-	27.32%	44	27	747
Class 14	6,245	6,245	5,850	395	0.00%	6,080	6.31%	15.30%	-	22.92%	124	56	1,341
Class 15	864	864	527	337	0.00%	614	9.95%	23.51%	-	46.32%	20	12	244
Class 16	437	437	195	242	0.00%	292	16.03%	22.08%	-	55.76%	11	7	109
Class 17	237	237	59	178	0.00%	118	22.12%	23.64%	-	68.25%	4	3	40
Class 18	325	325	258	67	0.00%	345	31.63%	17.89%	-	56.99%	24	15	147
Class 19	336	336	127	209	0.00%	254	45.00%	17.17%	-	55.15%	15	10	70
Class 20	1,026	1,026	566	460	0.00%	957	100.00%	21.27%	-	0.00%	244	120	-
Total as at 31/12/2019	**183,014**	**183,014**	**93,584**	**89,430**	**0.00%**	**120,397**	**1.31%**	**22.81%**	**0,00**		**657**	**365**	**7,469**
Total as at 31/12/2018	**188,311**	**188,311**	**91,966**	**96,346**	**0.00%**	**122,858**	**1.50%**	**22.84%**	**0,00**		**385**	**407**	**8,148**

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

Tab. 5.3.9 – IRB approach: Other 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	55,414	54,571	14,840	41,154	3.46%	273	0.03%	44.24%	-	3.54%	14	2	525
Class 03	195,673	190,312	66,696	131,646	6.10%	798	0.05%	43.50%	-	5.19%	57	15	3,461
Class 04	693,897	684,648	107,100	601,367	3.96%	10,327	0.09%	44.01%	-	8.17%	90	42	8,754
Class 05	390,582	371,815	137,504	246,321	4.88%	2,665	0.13%	43.40%	-	10.52%	104	78	14,468
Class 06	676,964	647,553	262,863	412,534	6.75%	4,937	0.20%	43.38%	-	14.22%	229	228	37,370
Class 07	962,324	918,990	429,648	525,833	6.94%	8,327	0.30%	43.07%	-	18.45%	439	555	79,257
Class 08	957,831	902,179	460,179	478,646	7.66%	9,953	0.46%	42.72%	-	23.81%	666	904	109,546
Class 09	1,279,651	1,199,459	694,772	554,967	9.06%	14,358	0.69%	42.82%	-	29.74%	1,392	2,053	206,593
Class 10	1,481,443	1,370,931	846,618	572,375	8.40%	18,874	1.05%	42.45%	-	35.89%	2,569	3,773	303,860
Class 11	1,501,614	1,395,269	882,432	564,445	9.14%	21,337	1.59%	42.14%	-	41.47%	4,537	5,912	365,982
Class 12	1,465,033	1,354,985	908,528	492,828	9.41%	21,540	2.42%	42.13%	-	46.25%	8,716	9,264	420,152
Class 13	1,257,978	1,169,169	846,480	357,071	9.63%	19,715	3.99%	41.82%	-	49.10%	23,771	14,124	415,628
Class 14	653,455	605,022	468,198	151,927	9.94%	13,990	6.31%	41.51%	-	51.06%	21,465	12,262	239,056
Class 15	305,099	280,154	227,174	63,174	16.14%	5,447	9.95%	40.65%	-	55.32%	15,823	9,189	125,666
Class 16	141,509	128,974	107,508	26,817	19.96%	2,915	16.03%	41.00%	-	67.56%	9,041	7,067	72,629
Class 17	53,835	47,269	41,448	6,487	10.28%	1,045	22.12%	41.21%	-	77.93%	4,788	3,778	32,300
Class 18	36,898	33,832	27,699	7,294	15.91%	1,825	31.63%	39.53%	-	83.16%	3,514	3,464	23,035
Class 19	23,983	21,332	17,335	4,868	17.91%	2,883	45.00%	39.79%	-	85.20%	2,681	3,104	14,769
Class 20	1,969,535	1,821,848	1,705,353	161,317	27.78%	55,689	100.00%	57.00%	-	18.68%	1,095,915	982,251	318,605
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**
Total as at 31/12/2018	**16,671,960**	**15,775,475**	**10,375,638**	**5,890,067**	**7.68%**	**242,347**	**2.99%**	**42.12%**	**0,00**		**2,252,976**	**2,035,345**	**3,286,005**

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

Tab. 5.3.10 – IRB approach: Other 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	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 03	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 04	-	-	-	-	0.00%	-	0.00%	0.00%	-	0.00%	-	-	-
Class 05	509,273	509,042	89,189	432,746	2.98%	79,964	0.13%	21.36%	-	6.79%	25	25	6,055
Class 06	210,760	210,575	93,138	130,083	9.72%	16,649	0.20%	21.13%	-	9.07%	42	39	8,450
Class 07	269,117	268,619	129,110	156,731	10.99%	27,706	0.30%	22.57%	-	12.65%	94	87	16,338
Class 08	255,792	255,432	143,905	133,413	16.40%	17,097	0.46%	22.49%	-	16.35%	144	149	23,528
Class 09	310,846	310,139	163,574	166,169	11.80%	25,965	0.69%	23.03%	-	20.87%	315	260	34,136
Class 10	308,493	308,045	180,598	145,065	12.14%	27,587	1.05%	22.38%	-	24.64%	765	424	44,492
Class 11	245,219	244,748	155,487	101,842	12.35%	23,963	1.59%	21.12%	-	27.05%	1,428	522	42,058
Class 12	177,211	177,072	119,520	63,136	8.85%	20,668	2.42%	23.65%	-	33.71%	1,862	684	40,290
Class 13	118,624	118,491	94,371	28,060	14.04%	12,399	3.99%	23.30%	-	35.67%	2,928	877	33,664
Class 14	48,107	47,989	42,343	6,567	14.03%	15,587	6.31%	21.84%	-	35.07%	1,710	583	14,848
Class 15	40,711	40,711	36,942	9,075	58.46%	3,796	9.95%	25.26%	-	44.88%	1,525	929	16,581
Class 16	11,485	11,485	10,699	883	10.93%	2,400	16.03%	22.85%	-	49.09%	678	392	5,251
Class 17	9,927	9,924	9,507	547	23.81%	1,105	22.12%	14.29%	-	35.12%	355	300	3,339
Class 18	4,202	4,202	3,967	533	55.93%	4,957	31.63%	19.21%	-	52.65%	326	241	2,089
Class 19	3,298	3,294	2,925	547	32.47%	9,544	45.00%	19.62%	-	54.91%	350	258	1,606
Class 20	466,560	465,373	453,190	13,911	12.42%	117,026	100.00%	40.05%	-	0.00%	263,136	191,324	-
Total as at 31/12/2019	**2,989,626**	**2,985,141**	**1,728,465**	**1,389,308**	**9.52%**	**406,413**	**2.06%**	**22.36%**	**0,00**		**275,686**	**197,096**	**292,725**
Total as at 31/12/2018	**4,324,540**	**4,320,280**	**3,082,967**	**1,337,192**	**7.43%**	**432,879**	**2.12%**	**22.85%**	**0,00**		**754,880**	**659,005**	**340,019**

For reporting purposes, Unused Margin refer to issued guarantees and revocable and irrevocable commitments to disburse funds. 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 subsidiaries (MP Banque) adopt standard models and their exposures are included among those subject 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
Exposures to or secured by corporates	Italy	23,010,193	100.00%	2.31%	37.51%	16,360,565	188,801	229,776
	Other EU Countries	-	-	-	-	-	-	-
	Other not EU Countries	-	-	-	-	-	-	-
	Total as at 31/12/2019	**23,010,193**	**100.00%**	**2.31%**	**37.51%**	**16,360,565**	**188,801**	**229,776**
	Total as at 31/12/2018	**22,255,552**	**100.00%**	**2.42%**	**37.32%**	**16,177,128**	**182,268**	**258,658**

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

		EAD	Incidence	Weighted Average PD	Weighted Average LGD	RWA	EL	AL
Retail exposures	Italy	38,505,432	100.00%	1.43%	18.60%	6,848,519	133,568	197,786
	Other EU Countries	-	-	-	-	-	-	-
	Other not EU Countries	-	-	-	-	-	-	-
	Total as at 31/12/2019	**38,505,432**	**100.00%**	**1.43%**	**18.60%**	**6,848,519**	**133,568**	**197,786**
	Total as at 31/12/2018	**38,392,960**	**100.00%**	**1.64%**	**18.67%**	**7,251,594**	**151,244**	**267,399**

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 2017, 2018 and 2019 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 %)
2017	Exp. Vs Corporates	422,000	374,000	-11.4%
	Retail Exp.	49,000	44,000	-10.2%
	Specialized Lending	22,000	0	-100.0%
	TOTAL	**493,000**	**418,000**	**-15.2%**
2018	Exp. Vs Corporates	342,000	257,000	-24.9%
	Retail Exp.	43,000	47,000	9.3%
	Specialized Lending	24,000	0	-100.0%
	TOTAL	**409,000**	**304,000**	**-25.7%**
2019	Exp. Vs Corporates	300,000	182,000	-39.3%
	Retail Exp.	33,000	34,000	3.0%
	Specialized Lending	20,000	6,000	-70.0%
	TOTAL	**353,000**	**222,000**	**-37.1%**

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 2017 and 2018, the expected loss is basically aligned with the actual loss. The same holds true for 2019.

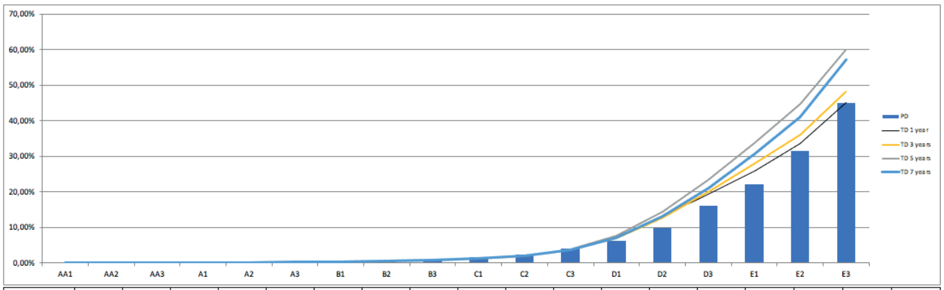
Comparison between estimated and actual results of backtesting (EU CR9)

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 impact on any underestimated default rates on the variables used to measure credit risk (Expected Loss and Regulatory Capital) is also quantified. 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



CLASSE	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%	0,00%	0,08%	0,22%	0,21%	0,40%	0,54%	0,82%	1,34%	2,13%	3,54%	6,78%	13,04%	19,36%	25,88%	33,55%	45,09%
TD 3 years	0,00%	0,00%	0,06%	0,12%	0,16%	0,23%	0,36%	0,53%	0,78%	1,18%	2,00%	3,53%	6,87%	12,70%	19,91%	27,80%	36,12%	48,02%
TD 5 years	0,00%	0,05%	0,07%	0,14%	0,17%	0,25%	0,33%	0,53%	0,84%	1,31%	2,24%	3,94%	7,69%	14,42%	23,33%	33,56%	44,80%	59,85%
TD 7 years	0,00%	0,04%	0,07%	0,12%	0,15%	0,23%	0,35%	0,53%	0,80%	1,25%	2,13%	3,72%	7,12%	13,16%	21,06%	30,71%	40,98%	57,09%
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.

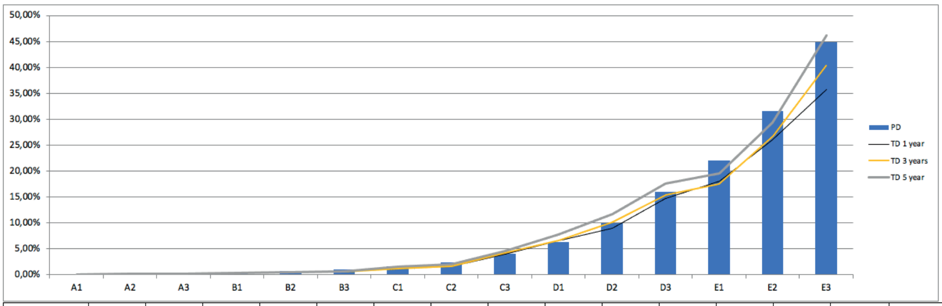
These results confirm the TTC oriented nature of the Montepaschi Group's rating system, which generates estimates, which are stable, but are also capable of incorporating the most recent results. The results of the annual calibration tests were satisfactory for all the Corporate models.

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%	0,13%	0,17%	0,31%	0,33%	0,46%	1,09%	1,52%	3,97%	6,49%	8,98%	14,73%	18,00%	26,03%	35,85%
TD 3 years	0,06%	0,14%	0,20%	0,36%	0,39%	0,52%	1,25%	1,67%	4,19%	6,67%	10,08%	15,47%	17,58%	26,73%	40,36%
TD 5 year	0,07%	0,16%	0,25%	0,42%	0,48%	0,62%	1,51%	2,06%	4,52%	7,74%	11,70%	17,66%	19,62%	29,46%	46,15%
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 and show an essentially flat trend which increases as rating class risk exposures increase both over the last year and over a broader time series.

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 profit and loss; and
- trade receivables or assets deriving from contracts that result from transactions falling under the scope of IFRS 15.

According to the ECL calculation model, introduced in IFRS 9, 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 financial assets 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 includes all non-performing loans, i.e. non-performing exposures 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") Based on these circulars, the perimeter of non-performing exposures corresponds to the aggregate "non-performing exposures", defined in EU Regulation 2015/227, and implemented through the EBA's "Implementing

Technical Standard (ITS) on Supervisory Reporting (forbearance and non-performing exposures)" (EBA/ITS/2013/03/rev1 24/7/2014).

- **Bad loans**: these represent the aggregate of on- and off-balance sheet exposures to a party in a status of insolvency (even if not judicially certified) or in essentially comparable situations, regardless of any loss forecasts made by the Bank;
- **Unlikely to pay**: 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. This assessment is carried out regardless of the existence of any overdue and unpaid amounts (or instalments). The classification among unlikely to pay is not necessarily linked to the explicit presence of anomalies, such as a missed repayment, but rather is linked to the existence of elements that would indicate a situation of risk that the borrower may default (e.g., a crisis in the borrower's business sector);
- **Past due and/or overdrawn exposures**: on-balance sheet exposures, other than those classified as bad or unlikely to pay, which, at the reporting date, are past due and/or overdrawn for more than 90 days, according to the significance threshold envisaged in the aforementioned legislation. For MPS Group, non-performing past due and/or overdrawn exposures are determined in reference to the position of an individual borrower.

As regards assessment, for bad loans and unlikely to pay positions with a gross exposure exceeding a given threshold value (currently EUR 1 mln) valuation is analytical, carried out by managers. For all remaining non-performing exposures, the valuation is carried out statistically on the basis of parameters determined by Risk Management. 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 31.12.2019.

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	4,331,523	41,995,833	3,783,533	-	-	-	42,543,823
4	*Of which: SMEs*	*1,832,357*	*20,785,452*	*2,744,080*	-	-	-	*19,873,730*
5	*Of which: other corporates*	*2,499,166*	*21,210,381*	*1,039,453*	-	-	-	*22,670,093*
6	**Retail**	**5,551,902**	**46,740,093**	**2,491,488**	**-**	**-**	**-**	**49,800,507**
7	Secured by real estate property	3,943,758	31,072,878	1,019,335	-	-	-	33,997,300
8	*SMEs*	*484,665*	*5,381,465*	*558,566*	-	-	-	*5,307,564*
9	*Non-SMEs*	*3,459,093*	*25,691,412*	*460,769*	-	-	-	*28,689,736*
10	Qualifying revolving	17,647	165,367	657	-	-	-	182,357
11	Other retail	1,590,497	15,501,849	1,471,496	-	-	-	15,620,850
12	*SMEs*	*1,279,651*	*12,823,068*	*1,195,810*	-	-	-	*12,906,910*
13	*Non-SMEs*	*310,846*	*2,678,780*	*275,686*	-	-	-	*2,713,940*
14	Equity	-	-	-	-	-	-	-
15	**Total AIRB approach**	**9,883,425**	**88,735,926**	**6,275,021**	**-**	**-**	**-**	**92,344,330**
16	Central governments or central banks	-	24,814,594	-	19,433	-	-	24,795,161
17	Regional governments or local authorities	-	2,270,468	-	2,303	-	-	2,268,166
18	Public sector entities	-	695,984	-	461	-	-	695,523
19	Multilateral development banks	-	126,406	-	4	-	-	126,402
20	International organisations	-	-	-	-	-	-	-
21	Institutions	-	40,107,183	-	2,458	-	-	40,104,725
22	Corporates	-	6,116,332	-	8,138	-	-	6,108,193
23	*Of which: SMEs*	-	*1,655,804*	-	*2,650*	-	-	*1,653,153*
24	Retail	-	1,952,203	-	8,481	-	-	1,943,722
25	*Of which: SMEs*	-	*893,197*	-	*1,819*	-	-	*891,378*
26	Secured by mortgages on immovable property	-	1,531,474	-	3,612	-	-	1,527,862
27	*Of which: SMEs*	-	*369,521*	-	*2,498*	-	-	*367,023*
28	Exposures in default	1,095,312	-	-	473,516	-	-	621,796
29	Items associated with particularly high risk	84,968	328,329	-	43,090	-	-	370,208
30	Covered bonds	-	705,566	-	418	-	-	705,148
31	Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
32	Collective investments undertakings	-	445,091	-	474	-	-	444,617
33	Equity exposures	9,340	1,106,374	-	-	-	-	1,115,714
34	Other exposures	-	6,004,542	-	2,646	-	-	6,001,896
35	**Total standardised approach**	**1,189,621**	**86,204,547**	**-**	**565,034**	**-**	**-**	**86,829,134**
36	**Total**	**11,073,046**	**174,940,473**	**6,275,021**	**565,034**	**-**	**-**	**179,173,464**
37	*Of which: Loans*	*120,469,409*		*6,235,243*	*559,405*	-	-	*113,674,761*
38	*of which: Debt securities*	*28,967,688*		*38,363*	*1,391*	-	-	*28,927,935*
39	*Of which: Off-balance-sheet exposures*	*38,579,073*		*148,626*	*4,238*	-	-	*38,426,209*

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.

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**	**2,114,235**	4,398,521	4,398,521	**3,975,805**	-138,381	-1,780,333	3,595,716	2,111,720
2	*Central banks*	-	-	-	-	-	-	-	
3	*General governments*	5,034	-	-	-	-61	-	-	
4	*Credit institutions*	-	-	-	-	-	-	-	
5	*Other financial corporations*	14,946	120,064	120,064	62,461	-904	-69,897	54,416	
6	*Non-financial corporations*	1,456,782	3,234,597	3,234,597	2,870,220	-110,050	-1,452,972	2,230,849	
7	*Households*	637,474	1,043,860	1,043,860	1,043,123	-27,366	-257,464	1,310,451	
8	**Debt securities**	**216,538**	**10,265**	**10,265**	-	**-5**	**-1,908**	-	
9	**Loan commitments given**	**58,899**	**70,689**	**70,689**	**70,689**	**170**	-	**35,346**	
10	**Total**	**2,389,672**	**4,479,476**	**4,479,476**	**4,046,494**	**-138,215**	**-1,782,241**	**3,631,062**	**2,111,720**

The figures shown in the table do not include the amounts relating to assets held for sale.

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	381,834
2	Non-performing forborne loans and advances that failed to meet the nonperforming exit criteria	3,484,024

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 ≤ 5 years	Past due > 5	Of which defaulted
1	**Loans and advances**	**89,463,659**	88,997,636	466,022	**11,362,063**	2,135,568	241,092	640,635	7,499,491	845,276	**11,362,063**
2	Central banks	9,406,383	9,406,383	-	-	-	-	-	-	-	-
3	General governments	2,002,766	1,975,390	27,376	242,973	41,847	697	334	199,454	642	242,973
4	Credit institutions	5,544,330	5,490,314	54,016	12,441	-	-	-	12,441	-	12,441
5	Other financial corporations	6,743,386	6,743,075	311	193,073	72,309	4,164	20,705	95,405	490	193,073
6	Non-financial corporations	31,808,553	31,588,603	219,950	7,998,743	1,675,353	126,569	412,659	5,071,787	712,375	7,998,743
7	*Of which SMEs*	*21,057,611*	*20,910,634*	*146,978*	*6,265,645*	*1,082,188*	*117,665*	*329,357*	*4,273,367*	*463,068*	*6,265,645*
8	Households	33,958,241	33,793,872	164,369	2,914,832	346,059	109,662	206,937	2,120,405	131,769	2,914,832
9	**Debt securities**	**16,859,165**	16,784,241	74,925	**42,520**	23,820	-	-	18,700	-	42,520
10	Central banks	-	-	-	-	-	-	-	-	-	-
11	General governments	12,653,712	12,615,456	38,256	-	-	-	-	-	-	-
12	Credit institutions	1,155,538	1,129,269	26,269	-	-	-	-	-	-	-
13	Other financial corporations	2,744,441	2,744,441	-	18,700	-	-	-	18,700	-	18,700
14	Non-financial corporations	305,474	295,074	10,400	23,820	23,820	-	-	-	-	23,820
15	**Off-balance-sheet exposures**	**37,406,555**			**1,326,127**						**1,326,127**
16	Central banks	70			-						-
17	General governments	2,413,281			120,179						120,179
18	Credit institutions	2,018,387			6,292						6,292
19	Other financial corporations	5,478,856			6,410						6,410
20	Non-financial corporations	24,760,064			1,157,479						1,157,479
21	Households	2,735,897			35,768						35,768
22	**Total**	**143,729,380**	**105,781,877**	**540,947**	**12,730,710**	**2,159,389**	**241,092**	**640,635**	**7,518,191**	**845,276**	**12,730,710**

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 11.27%.

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**	**89,314,038**	77,256,126	12,056,940	**10,934,001**	-	10,934,001	**-475,694**	-65,074	-410,620	**-5,135,718**	-	-5,135,718	-216,680	55,706,855	4,749,083
2	Central banks	9,405,412	9,405,412	-	-	-	-	-	-	-	-	-	-	-	-	-
3	General governments	2,002,766	1,930,429	72,337	242,973	-	242,973	-3,346	-2,975	-371	-118,116	-	-118,116	-1	-	-
4	Credit institutions	5,544,330	5,372,907	171,422	12,441	-	12,441	-1,891	-1,487	-404	-12,204	-	-12,204	-	-	-
5	Other financial corporations	6,743,386	6,592,781	150,606	135,471	-	135,471	-6,497	-2,468	-4,030	-75,176	-	-75,176	-202	-	-
6	Non-financial corporations	31,692,840	22,617,815	9,075,024	7,630,287	-	7,630,287	-364,021	-39,897	-324,124	-3,984,570	-	-3,984,570	-191,928	-	-
7	*Of which SMEs*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Households	33,924,333	31,336,783	2,587,550	2,912,829	-	2,912,829	-99,937	-18,247	-81,690	-945,651	-	-945,651	-24,549	-	-
9	**Debt securities**	**16,577,277**	**16,553,738**	**23,538**	**13,555**	**-**	**13,555**	**-13,307**	**-12,564**	**-743**	**-11,137**	**-**	**-11,137**	**-**	**-**	**-**
10	Central banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	General governments	12,653,712	12,653,712	-	-	-	-	-9,766	-9,766	-	-	-	-	-	-	-
12	Credit institutions	1,155,193	1,138,231	16,961	-	-	-	-1,837	-1,372	-465	-	-	-	-	-	-
13	Other financial corporations	2,602,345	2,602,345	-	-	-	-	-1,210	-1,210	-	-	-	-	-	-	
14	Non-financial corporations	166,027	159,450	6,577	13,555	-	13,555	-494	-215	-278	-11,137	-	-11,137	-	-	-
15	**Off-balance-sheet exposures**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	*Central banks*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	*General governments*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	*Credit institutions*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	*Other financial corporations*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	*Non-financial corporations*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	*Households*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	**Total**	**105,891,314**	**93,809,864**	**12,080,478**	**10,947,556**	**-**	**10,947,556**	**-489,001**	**-77,637**	**-411,363**	**-5,146,855**	**-**	**-5,146,855**	**-216,680**	**55,706,855**	**4,749,083**

Exposures relating to Loans and Advances and Debt Securities are represented exclusively by assets valued at amortised cost. 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.

Tab. 5.4.6.1 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

		a	b	c	d	e	f	g
		Gross carrying/nominal amount	Of which: non-performing	Of which: defaulted	Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
1	**On-balance-sheet exposures**	**117,721,043**	11,404,583	11,404,583	**116,838,870**	-5,635,856		**-274,553**
2	*Abu dhabi*	*34,829*	*3*	*3*	*34,829*	*-78*		-
3	*Antigua and barbuda*	*348*	-	-	*348*	-		-
4	*Albania*	*84*	*10*	*10*	*84*	*-6*		-
5	*Armenia*	*7,673*	-	-	*7,673*	-		-
6	*Angola*	-	-	-	-	-		-
7	*Argentina*	*3,960*	*137*	*137*	*3,960*	*-66*		-
8	*Austria*	*21,940*	*9,024*	*9,024*	*21,940*	*-9,033*		-
9	*Australia*	*7,818*	*6*	*6*	*7,818*	*-41*		-
10	*Azerbaijan*	*593*	*1*	*1*	*593*	*-2*		-
11	*Bosnia and herzegovina*	*465*	-	-	*465*	*-1*		-
12	*Barbados*	-	-	-	-	-		-
13	*Bangladesh*	*778*	*1*	*1*	*778*	*-3*		-
14	*Belgium*	*51,850*	*793*	*793*	*51,850*	*-281*		-
15	*Burkina faso*	-	-	-	-	-		-
16	*Bulgaria*	*776*	*39*	*39*	*776*	*-9*		-
17	*Bahrain*	*5*	-	-	*5*	-		-
18	*Burundi*	-	-	-	-	-		-
19	*Benin*	*598*	-	-	*598*	*-1*		-
20	*Bermuda*	-	-	-	-	-		-
21	*Brunei darussalam*	*125*	-	-	*125*	-		-
22	*Bolivia*	-	-	-	-	-		-
23	*Brazil*	*12,184*	*4*	*4*	*12,184*	*-38*		-
24	*Bahamas*	-	-	-	-	-		-
25	*Botswana*	-	-	-	-	-		-
26	*Belarus*	*22,123*	-	-	*22,123*	*-154*		-
27	*Canada*	*7,323*	*9*	*9*	*7,323*	*-16*		-
28	*Congo, democratic republic of*	*575*	*273*	*273*	*575*	*-86*		-
29	*Congo*	*131*	-	-	*131*	-		-
30	*Switzerland*	*32,739*	*1,660*	*1,660*	*32,667*	*-509*		-
31	*Cote d'ivoire*	*189*	*1*	*1*	*189*	*-2*		-
32	*Chile*	*2,322*	-	-	*2,322*	*-10*		-
33	*Cameroon*	*96*	*16*	*16*	*96*	*-13*		-
34	*China*	*94,587*	*36*	*36*	*94,587*	*-672*		-
35	*Colombia*	*387*	-	-	*387*	*-1*		-
36	*Costa rica*	*306*	-	-	*306*	*-3*		-
37	*Cuba*	*25,795*	*12,181*	*12,181*	*25,795*	*-12,318*		-
38	*Cape verde*	-	-	-	-	-		-
39	*Curacao*	-	-	-	-	-		-
40	*Cyprus*	*460*	*30*	*30*	*460*	*-4*		-
41	*Czech republic*	*2,429*	-	-	*2,429*	*-7*		-
42	*Germany*	*280,547*	*1,587*	*1,587*	*280,547*	*-849*		-
43	*Djibouti*	-	-	-	-	-		-
44	*Denmark*	*1,245*	*6*	*6*	*1,245*	*-6*		-
45	*Dominican republic*	*4*	-	-	*4*	-		-
46	*Algeria*	*7,647*	*2*	*2*	*7,647*	*-32*		-
47	*Ecuador*	-	-	-	-	-		-
48	*Estonia*	*8*	*8*	*8*	*8*	*-7*		-
49	*Egypt*	*2,025*	*529*	*529*	*2,025*	*-304*		-
50	*Eritrea*	-	-	-	-	-		-
51	*Spain*	*1,899,340*	*660*	*660*	*1,899,340*	*-984*		-
52	*Ethiopia*	*1*	-	-	*1*	-		-
53	*Finland*	*317*	-	-	*317*	-		-
54	*Clipperton island*	*1,205,591*	*106,268*	*106,268*	*1,205,591*	*-55,037*		-
55	*Gabon*	*5*	*5*	*5*	*5*	*-4*		-
56	*United kingdom*	*3,505,582*	*8,707*	*8,707*	*3,505,582*	*-5,502*		-
57	*Georgia*	*1*	-	-	*1*	-		-
58	*Guernsey, c.i.*	-	-	-	-	-		-
59	*Ghana*	*389*	*30*	*30*	*389*	*-21*		-

Tab. 5.4.6.2 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

		a	b	c	d	e	f	g
		Gross carrying/nominal amount						
			Of which: non-performing					
				Of which: defaulted	Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
60	Gibraltar	-	-	-	-	-		-
61	Gambia	-	-	-	-	-		-
62	Guadeloupe	354	340	340	354	-337		-
63	Greece	148	26	26	148	-24		-
64	Hong kong	2,970	1	1	2,970	-5		-
65	Honduras	-	-	-	-	-		-
66	Croatia	1,531	5	5	1,531	-7		-
67	Hungary	3,333	-	-	3,333	-7		-
68	Indonesia	4,606	-	-	4,606	-29		-
69	Ireland	24,418	125	125	24,418	-92		-
70	Israel	1,503	1	1	1,503	-5		-
71	Isle of man	-	-	-	-	-		-
72	India	6,933	5	5	6,933	-46		-
73	Iraq	18,785	-	-	18,785	-		-
74	Iran (islamic republic of)	46	4	4	46	-2		-
75	Iceland	699	-	-	699	-1		-
76	Italy	109,557,159	11,222,534	11,222,534	108,679,041	-5,535,719		-273,120
77	Jersey, c.i.	-	-	-	-	-		-
78	Jordan	194	6	6	194	-5		-
79	Japan	5,811	1	1	5,811	-5		-
80	Kenya	757	1	1	757	-2		-
81	Korea, republic of	1,790	1	1	1,790	-16		-
82	Kuwait	4,425	-	-	4,425	-18		-
83	Cayman islands	10,733	9,632	9,632	10,733	-5,202		-
84	Kazakhstan	10,039	70	70	10,039	-106		-
85	Lebanon	868	-	-	868	-3		-
86	Saint lucia	-	-	-	-	-		-
87	Liechtenstein	-	-	-	-	-		-
88	Sri lanka	-	-	-	-	-		-
89	Lithuania	1	1	1	1	-1		-
90	Luxembourg	177,158	14,466	14,466	173,174	-2,332		-1,433
91	Latvia	208	-	-	208	-		-
92	Libya	3	1	1	3	-		-
93	Morocco	1,934	50	50	1,934	-54		-
94	Monaco	7,045	144	144	7,045	-176		-
95	Moldova, republic of	48	1	1	48	-		-
96	Montenegro	122	-	-	122	-		-
97	Madagascar	2	2	2	2	-2		-
98	Marshall islands	-	-	-	-	-		-
99	Macedonia,the former yugoslav republ. of	3	1	1	3	-1		-
100	Myanmar	2	2	2	2	-2		-
101	Macao	135	-	-	135	-		-
102	Mauritania	-	-	-	-	-		-
103	Malta	473	-	-	473	-		-
104	Mauritius	950	-	-	950	-6		-
105	Maldives	4,037	-	-	4,037	-2		-
106	Mexico	26,805	102	102	26,805	-108		-
107	Malaysia	784	3	3	784	-5		-
108	Mozambique	-	-	-	-	-		-
109	Nigeria	102	1	1	102	-		-
110	Netherlands	16,085	585	585	16,085	-100		-
111	Norway	1,336	-	-	1,336	-2		-

Tab. 5.4.6.3 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

		a	b	c	d	e	f	g
		Gross carrying/nominal amount	Of which: non-performing	Of which: defaulted	Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
112	Nepal	-	-	-	-	-		-
113	New zealand	1,788	-	-	1,788	-9		-
114	Oman	220	-	-	220	-		-
115	Panama	86	-	-	86	-		-
116	Peru	1,113	-	-	1,113	-6		-
117	Philippines	147	1	1	147	-1		-
118	Pakistan	640	-	-	640	-3		-
119	Poland	4,663	2	2	4,663	-20		-
120	Puerto rico	-	-	-	-	-		-
121	Palestinian territory, occupied	-	-	-	-	-		-
122	Portugal	24,427	3	3	24,427	-13		-
123	Paraguay	653	-	-	653	-1		-
124	Qatar	8,207	1	1	8,207	-32		-
125	Reunion	-	-	-	-	-		-
126	Romania	8,763	53	53	8,763	-46		-
127	Kosovo	1,136	35	35	1,136	-4		-
128	Russian federation	37,932	316	316	37,932	-189		-
129	Rwanda	-	-	-	-	-		-
130	Saudi Arabia	4,682	3	3	4,682	-37		-
131	Sudan	6	-	-	6	-		-
132	Sweden	1,140	577	577	1,140	-80		-
133	Singapore	7,446	1	1	7,446	-49		-
134	Slovenia	3,820	26	26	3,820	-12		-
135	Slovakia	2,079	-	-	2,079	-15		-
136	San marino	2,722	153	153	2,722	-132		-
137	Senegal	5	-	-	5	-		-
138	Suriname	31,022	-	-	31,022	-		-
139	El salvador	-	-	-	-	-		-
140	Syrian arab republic	-	-	-	-	-		-
141	Chad	19	19	19	19	-1		-
142	Togo	131	-	-	131	-1		-
143	Thailand	1,063	-	-	1,063	-5		-
144	Turkmenistan	-	-	-	-	-		-
145	Tunisia	2,214	11	11	2,214	-14		-
146	Turkey	34,081	1	1	34,081	-445		-
147	Taiwan	-	-	-	-	-		-
148	Tanzania, united republic of	3,998	-	-	3,998	-6		-
149	Ukraine	18	9	9	18	-6		-
150	Uganda	99	-	-	99	-		-
151	United states	256,141	1,168	1,168	256,141	-507		-
152	Uruguay	30	-	-	30	-		-
153	Holy see (vatican city state)	9	-	-	9	-		-
154	Venezuela	424	7	7	424	-6		-
155	Virgin islands, british	12,053	12,053	12,053	12,053	-3,664		-
156	Viet nam	778	-	-	778	-7		-
157	South africa	5,007	1	1	5,007	-12		-
158	Zambia	-	-	-	-	-		-
159	Zimbabwe	-	-	-	-	-		-
160	Other Countries	131,755	1	1	131,755	-5		-

Tab. 5.4.6.4 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

		a	b	c	d	e	f	g
		Gross carrying/nominal amount			Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
			Of which: non-performing					
				Of which: defaulted				
161	**Off-balance-sheet exposures**	**38,748,913**	**1,326,127**	**1,326,127**			**158,793**	
162	*Abu dhabi*	55,883	-	-			-	
163	*Albania*	101	-	-			-	
164	*Armenia*	2,635	-	-			-	
165	*Argentina*	1,571	-	-			-	
166	*Austria*	5,502	-	-			-	
167	*Australia*	19,856	-	-			-	
168	*Bosnia and herzegovina*	281	-	-			-	
169	*Bangladesh*	16,803	-	-			-	
170	*Belgium*	137,103	-	-			-	
171	*Bulgaria*	4,057	-	-			-	
172	*Bahrain*	12,200	-	-			-	
173	*Benin*	307	-	-			-	
174	*Brazil*	27,010	-	-			-	
175	*Belarus*	11,844	-	-			-	
176	*Canada*	31,025	-	-			-	
177	*Switzerland*	52,255	-	-			-	
178	*Cote d'ivoire*	126	-	-			-	
179	*Chile*	5,987	-	-			-	
180	*Cameroon*	1	-	-			-	
181	*China*	196,044	-	-			-	
182	*Colombia*	7,378	-	-			-	
183	*Costa rica*	5,031	-	-			-	
184	*Cuba*	18,095	-	-			-	
185	*Cyprus*	314	-	-			-	
186	*Czech republic*	3,050	-	-			-	
187	*Germany*	21,759	-	-			-	
188	*Denmark*	6,016	-	-			-	
189	*Dominican republic*	5	-	-			-	
190	*Algeria*	34,502	-	-			-	
191	*Estonia*	8,500	-	-			-	
192	*Egypt*	11,789	-	-			-	
193	*Spain*	19,276	-	-			-	
194	*Ethiopia*	300	-	-			-	
195	*Finland*	22	-	-			-	
196	*Clipperton island*	211,858	3,441	3,441			-	
197	*United kingdom*	283,408	-	-			-	
198	*Ghana*	115	-	-			-	
199	*Gambia*	249	-	-			-	
200	*Greece*	153	-	-			-	
201	*Hong kong*	26,020	-	-			-	
202	*Croatia*	3,582	-	-			-	
203	*Hungary*	248	-	-			-	
204	*Indonesia*	28,247	-	-			-	
205	*Ireland*	13,149	-	-			15	
206	*Israel*	17,202	-	-			-	
207	*India*	66,955	-	-			-	
208	*Iraq*	3,057	-	-			-	
209	*Iran (islamic republic of)*	15	-	-			-	
210	*Iceland*	69	-	-			-	
211	*Italy*	36,607,649	1,322,686	1,322,686			158,778	
212	*Jordan*	3,843	-	-			-	

Tab. 5.4.6.5 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

	a	b	c	d	e	f	g
	Gross carrying/nominal amount			Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
		Of which: non-performing					
			Of which: defaulted				
213 Japan	16,571	-	-			-	
214 Kenya	550	-	-			-	
215 Korea, republic of	20,469	-	-			-	
216 Kuwait	16,572	-	-			-	
217 Kazakhstan	1,615	-	-			-	
218 Lebanon	6,655	-	-			-	
219 Liechtenstein	21	-	-			-	
220 Sri lanka	1,719	-	-			-	
221 Lithuania	1,000	-	-			-	
222 Luxembourg	25,032	-	-			-	
223 Latvia	1,064	-	-			-	
224 Morocco	6,752	-	-			-	
225 Monaco	2,199	-	-			-	
226 Moldova, republic of	5	-	-			-	
227 Montenegro	456	-	-			-	
228 Macedonia,the former yugoslav republ. of	200	-	-			-	
229 Mongolia	48	-	-			-	
230 Macao	190	-	-			-	
231 Malta	1,538	-	-			-	
232 Mauritius	87	-	-			-	
233 Maldives	9,541	-	-			-	
234 Mexico	21,016	-	-			-	
235 Malaysia	11,389	-	-			-	
236 Nigeria	100	-	-			-	
237 Netherlands	193,064	-	-			-	
238 Norway	514	-	-			-	
239 New zealand	4,060	-	-			-	
240 Oman	8,551	-	-			-	
241 Panama	1,048	-	-			-	
242 Peru	11,034	-	-			-	
243 Philippines	1,119	-	-			-	
244 Pakistan	6,299	-	-			-	
245 Poland	11,149	-	-			-	
246 Palestinian territory, occupied	243	-	-			-	
247 Portugal	8,369	-	-			-	
248 Paraguay	2,709	-	-			-	
249 Qatar	22,060	-	-			-	
250 Romania	6,675	-	-			-	
251 Kosovo	108	-	-			-	
252 Russian federation	24,786	-	-			-	
253 Saudi Arabia	51,161	-	-			-	
254 Sweden	9,029	-	-			-	
255 Singapore	6,163	-	-			-	
256 Slovenia	3,325	-	-			-	
257 Slovakia	17	-	-			-	
258 San marino	1,302	-	-			-	
259 Senegal	1	-	-			-	
260 Suriname	10,800	-	-			-	
261 Syrian arab republic	300	-	-			-	
262 Thailand	6,401	-	-			-	
263 Tunisia	9,370	-	-			-	
264 Turkey	70,047	-	-			-	

Tab. 5.4.6.6 – Quality of non-performing exposures by geography (Template 5 – EBA GL 2018/10)

		a	b	c	d	e	f	g
		Gross carrying/nominal amount			Of which: subject to impairment	Accumulated impairment	Provisions on off-balance sheet commitments and financial guarantees given	Accumulated negative changes in fair value due to credit risk on nonperforming exposures
			Of which: non-performing					
				Of which: defaulted				
265	*Taiwan*	*17,893*	-	-			-	
266	*Tanzania, united republic of*	*3,630*	-	-			-	
267	*Ukraine*	*177*	-	-			-	
268	*United states*	*104,204*	-	-			-	
269	*Uruguay*	*1,620*	-	-			-	
270	*Venezuela*	*5*	-	-			-	
271	*Viet nam*	*7,093*	-	-			-	
272	*South africa*	*2,347*	-	-			-	
273	*Other Countries*	*15,000*	-	-			-	
	Total	**156,469,956**	**12,730,710**	**12,730,710**	**116,838,870**	**-5,635,856**	**158,793**	**-274,553**

Tab.5.4.7 – 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: loans and advances subject to impairment	Accumulated impairment	Accumulated negative changes in fair value due to credit risk on non-performing exposures
			Of which: non-performing				
				Of which: defaulted			
1	Agriculture, forestry and fishing	1,473,342	311,862	311,862	1,469,564	-141,321	-
2	Mining and quarrying	106,873	36,145	36,145	106,707	-12,864	-35
3	Manufacturing	10,632,754	1,559,503	1,559,503	10,475,918	-851,673	-43,673
4	Electricity, gas, steam and air conditioning supply	1,460,881	143,765	143,765	1,441,106	-117,686	-
5	Water supply	763,984	85,839	85,839	763,984	-61,294	-
6	Construction	4,758,861	1,957,831	1,957,831	4,731,816	-1,171,515	-17,014
7	Wholesale and retail trade	6,722,501	874,830	874,830	6,707,571	-520,812	-3,601
8	Transport and storage	2,056,431	583,939	583,939	1,826,335	-166,446	-126,065
9	Accommodation and food service activities	1,868,053	427,996	427,996	1,857,283	-190,912	-9,326
10	Information and communication	774,086	83,159	83,159	774,086	-50,080	-
11	Financial and insurance activities	288,925	61,096	61,096	288,925	-53,551	-
12	Real estate activities	5,091,616	1,227,891	1,227,891	5,085,694	-659,082	-5,670
13	Professional, scientific and technical activities	1,252,638	267,560	267,560	1,244,002	-140,685	-4,985
14	Administrative and support service activities	1,019,437	206,554	206,554	1,019,437	-131,279	-
15	Public administration and defence, compulsory social security	14,625	2,449	2,449	14,625	-750	-
16	Education	30,187	3,258	3,258	30,187	-1,668	-
17	Human health services and social work activities	454,681	32,059	32,059	454,681	-23,344	-
18	Arts, entertainment and recreation	215,712	53,951	53,951	213,480	-25,959	-
19	Other services	821,711	79,058	79,058	817,727	-27,671	-1,433
20	**Total**	**39,807,296**	**7,998,743**	**7,998,743**	**39,323,127**	**-4,348,592**	**-211,803**

Tab. 5.4.8 – 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								
				Of which past due > 30 days < 90 days		Unlikely to pay that are not past due or are past due <= 90 days	Past due > 90 days	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**	**100,825,722**	**89,463,659**	**466,022**	**11,362,063**	**2,135,568**	**9,226,495**	**241,092**	**640,636**	**868,975**	**6,630,516**	**539,111**	**306,165**
2	*Of which secured*	*68,074,478*	*59,512,856*	*328,239*	*8,561,622*	*1,403,161*	*7,158,461*	*209,370*	*525,367*	*530,322*	*5,263,182*	*385,554*	*244,666*
3	*Of which secured with immovable property*	*46,895,554*	*39,399,541*	*291,255*	*7,496,013*	*1,202,129*	*6,293,883*	*249,270*	*521,208*	-	*5,185,522*	-	*337,884*
4	*Of which instruments with LTV higher than 60% and lower or equal to 80%*	*11,637,563*	*10,530,713*		*1,106,850*	*173,819*	*933,031*						
5	*Of which instruments with LTV higher than 80% and lower or equal to 100%*	*3,657,071*	*2,983,103*		*673,968*	*116,694*	*557,274*						
6	*Of which instruments with LTV higher than 100%*	*5,032,935*	*2,946,715*		*2,086,220*	*128,349*	*1,957,871*						
7	**Accumulated impairment for secured assets**	**-3,917,757**	**-347,470**	**-13,904**	**-3,570,287**	**-425,875**	**-3,144,412**	**-49,182**	**-150,916**	**-224,451**	**-2,390,912**	**-191,956**	**-136,996**
8	**Collateral**												
9	*Of which value capped at the value of exposure*	51,447,309	47,564,150	242,821	3,883,159	750,999	3,132,160	144,213	296,321	240,269	2,221,068	152,782	77,507
10	*Of which immovable property*	44,203,143	40,454,656	227,432	3,748,487	712,381	3,036,106	135,483	286,055	223,575	2,184,793	137,822	68,378
11	*Of which value above the cap*	-	-	-	-	-	-	-	-	-	-	-	-
12	*Of which immovable property*	-	-	-	-	-	-	-	-	-	-	-	-
13	Financial guarantees received	9,008,629	8,142,705	26,508	865,924	164,784	701,140	13,997	48,448	52,834	559,602	16,916	9,343
14	Accumulated partial write-off	-360,424	-64,140	-23	-296,284	-70,174	-226,110	-198	-10,720	-32,924	-178,627	-706	-2,935

Tab. 5.4.9 – Changes in the stock of non-performing loans and advances (Template 8 – EBA GL 2018/10)

		Dec-19	
		a	b
		Gross carrying amount	Related net accumulated recoveries
1	**Initial stock**	**15,652,735**	
2	Inflows to non-performing portfolios	2,159,873	
3	Outflows from non-performing portfolios	-6,450,546	
4	Outflow to performing portfolio	-614,942	
5	Outflow due to loan repayment, partial or total	-1,161,834	
6	Outflow due to collateral liquidation	-32,514	-26,908
7	Outflow due to taking possession of collateral		
8	Outflow due to sale of instruments	-3,063,413	-618,987
9	Outflow due to risk transfer		
10	Outflow due to write-off	-346,521	
11	Outflow due to other situations	-886,204	
12	Outflow due to reclassification as held for sale	-345,118	
13	**Final stock**	**11,362,063**	

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.

Tab.5.4.10 – 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)	-	-
2	Other than PP&E	773,538	-526,803
3	*Residential immovable property*	*62*	*-32*
4	*Commercial Immovable property*	*22,495*	*-727*
5	*Movable property (auto, shipping, etc.)*	-	-
6	*Equity and debt instruments*	*750,900*	*-526,011*
7	*Other*	*81*	*-33*
8	**Total**	**773,538**	**-526,803**

Tab.5.4.11 – 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	-	-	-	-								
2	Collateral obtained by taking possession other than that classified as PP&E	-	-	773,538	-526,803	216,138	-129,084	552,213	-397,477	5,187	-243	-	-
3	*Residential immovable property*	-	-	*62*	*-32*	-	-	*62*	*-32*	-	-	-	-
4	*Commercial immovable property*	-	-	*22,495*	*-727*	*4,175*	*-50*	*13,133*	*-435*	*5,187*	*-243*	-	-
5	*Movable property (auto, shipping, etc.)*	-	-	-	-	-	-	-	-	-	-	-	-
6	*Equity and debt instruments*	-	-	*750,900*	*-526,011*	*211,963*	*-129,034*	*538,937*	*-396,977*	-	-	-	-
7	*Other*	-	-	*81*	*-33*	-	-	*81*	*-33*	-	-	-	-
8	**Total**	-	-	**773,538**	**-526,803**	**216,138**	**-129,084**	**552,213**	**-397,477**	**5,187**	**-243**	-	-

The table below shows a summary of non-performing and performing exposures, adjustments (specific and by portfolio) and net values subject to Standard and AIRB methods as at 31.12.2019.

Tab. 5.4.12 – Credit Risk: value adjustments

	Dec-2019			
Prudential Perimeter	Defaulted Exposures	Performing Exposures	Mitigation Techniques	Net Value
IRB	**7,551,762**	**67,496,587**	**6,422,232**	**68,626,117**
of which: off-balance sheet (collateral and obbligations)	-	*3,652,549*	*148,626*	*3,503,923*
SMEs	1,215,370	15,515,994	2,744,080	13,987,284
Other companies	1,409,386	11,203,903	1,039,453	11,573,835
Specialized Lending - Slotting Criteria	223,647	1,601,369	147,211	1,677,806
Secured by real estate: SMEs	479,501	5,322,406	558,566	5,243,341
Secured by real estate: Individuals	3,356,819	24,550,216	460,769	27,446,266
Qualifying revolving	8,693	84,890	657	92,926
Other retail exposures: SMEs	694,772	7,557,604	1,195,810	7,056,566
Other retail exposures: Individuals	163,574	1,564,891	275,686	1,452,778
Securitization positions	-	95,314	-	95,314
STA	**897,864**	**55,795,420**	**565,034**	**56,128,250**
of which: off-balance sheet (collateral and obbligations)	*11,836*	*1,225,413*	*4,238*	*1,233,011*
Total as at 31/12/2019	**8,449,626**	**123,292,007**	**6,987,266**	**124,754,368**
Total as at 31/12/2018	**17,627,170**	**117,671,159**	**10,374,541**	**124,923,788**

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

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. If the measures of monitoring of the collaterals 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.

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;
- Companies and individuals, if this type of customer has a probability of default determined using the same rules as for guaranteed exposures;
- Guarantee institutions, provided they are:
  - the Guarantee Fund for SMEs managed by Mediocredito Centrale (the guarantee is an incentive from the Ministry of Economic Development – this applies both to direct guarantees and counter-guarantees acquired through the Intermediaries listed below);
  - SACE SpA (the portion guaranteed is a public incentive since, like the Guarantee Fund, it ultimately provides for State aid);
  - Persons/entities enrolled in the special list provided for by art. 107 of the Banking Act, as Supervised Financial Brokers;
  - Entities registered in a section of the list provided by art. 106 of the consolidated law on banking, having at least one of the following conditions:
    - an associated external rating of not less than 2;
    - issue a first demand guarantee backed by a counter-guarantee, on first demand, by Governments or Central Banks.

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 according to two different approaches:

- substitution of weighting or the probability of default (PD) of the debtor with the weighting or the PD of the protection provider
- substitution of personal LGD for unsecured LGD.

In both cases, mitigation is allowed on condition that the guarantor's PD is better than that of the main underlying obligor and that the requirement for personal guarantee admissibility is met, whereby capital absorption for the beneficiary of the guarantee should not be lower than capital absorption caused 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: Policy 1 and Policy 2. Policy 1 applies to all exposures falling within the AIRB scope, to businesses and consumers, backed by personal collaterals issued by:

- Public Administration and Central Banks,
- Local Institutions,
- Public Sector Entities,
- Multilateral Development Banks,
- International Organisations,
- 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 and that are not currently included in the internal models scope (e.g. Insurance Companies and UCITS).

Personal collateral issued by these groups/ individuals are treated by transferring the guaranteed exposure from the AIRB portfolio to the portfolio of the guarantor who then adopts standard treatment procedures.

Policy 2 applies to all those exposures falling within the AIRB scope, businesses and consumers, backed by personal collaterals issued by:

- Corporates,
- Consumers.

In this case, collateralised exposures see the application of an internally estimated loss rate for exposures secured by personal collateral (personal LGD), instead of the loss rate estimated for unsecured positions (LGD unsecured).

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.

Almost the total amount of personal guarantees are traceable to companies and individuals as guarantors.

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-2019			Dec-2018		
	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees
Exposures to central governments or central banks	-	-	-	-	17	-
Exposures to regional governments or local authorities	-	-	-	-	-	-
Exposures to public sector entities	14,844	41,650	-	14,853	23,800	-
Exposures to multilateral development banks	-	-	-	-	-	-
Exposures to international organisations	-	-	-	-	-	-
Exposures to institutions	28,590,518	-	-	37,819,144	-	-
Exposures to corporates	657,117	185,910	-	983,121	187,183	-
Retail exposures	36,043	55,202	-	25,294	74,832	-
Exposures secured by mortgages on immovable property	20	44,914	-	1,433	128,201	-
Exposures in default	5,751	3,619	-	4,696	4,300	-
Exposures associated with high risk	2,258	40	-	2,242	202	-
Exposures in the form of covered bonds	-	-	-	-	-	-
Exposures to institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
Exposures to collective investments undertakings	140,916	-	-	1,275	-	-
Equity exposures	-	-	-	-	-	-
Other exposures	-	-	-	-	-	-
Securitization positions	-	-	-	-	-	-
Exposures to Central Counterparties in the form of pre-funded contributions to the guarantee fund	-	-	-	-	-	-
Total standard approach	**29,447,468**	**331,335**	**-**	**38,852,058**	**418,536**	**-**

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 (Standard Approach)	Dec-2019			Dec-2018		
	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees	Financial Collaterals	Guarantees and Credit Derivatives	Other Guarantees
Exposures to or secured by corporates:	589,469	2,331,631	-	554,689	2,470,518	-
- SMEs	109,360	1,454,148	-	117,666	1,536,092	-
- Other companies	480,109	877,483	-	437,022	934,426	-
- Specialized Lending	-	-	-	-	-	-
Retail exposures:	240,654	3,070,887	-	297,527	2,718,587	-
- secured by real estate: SMEs	3,443	79,042	-	3,962	72,391	-
- secured by real estate: Individuals	3,593	1,235,727	-	3,453	795,358	-
- Qualifying revolving	-	-	-	-	-	-
- Other retail exposures: SMEs	145,820	1,728,817	-	175,507	1,819,507	-
- Other retail exposures: Individuals	87,798	27,301	-	114,606	31,330	-
Securitization positions	-	-	-	-	-	-
Total IRB approach	**830,123**	**5,402,518**	**-**	**852,216**	**5,189,105**	**-**

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 31/12/2019**	**143,162,020**	**36,011,444**	**30,277,590**	**5,733,854**	
4	*Of which defaulted*	*10,402,310*	*576,427*	*37,080*	*539,347*	
	Total as at 31/12/2018	**147,943,198**	**45,311,915**	**39,704,274**	**5,607,641**	

The following table shows the effect of all CRM techniques applied in accordance with Part Three, Title II, Chapter 4 of the CRR, including the financial collateral simple method and the financial collateral comprehensive method in the application of Article 222 and Article 223 of the same regulation on standardised approach capital requirements' calculations.

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

	Exposure 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	24,717,070	74,489	29,802,755	61,770	1,743,348	5.84%
2	Regional governments or local authorities	1,404,404	851,531	1,438,797	91,444	305,765	19.98%
3	Public sector entities	347,444	342,128	316,780	81,099	356,119	89.50%
4	Multilateral development banks	111,402	15,000	111,402	-	-	0.00%
5	International organisations	-	-	-	-	-	0.00%
6	Institutions	6,060,886	6,926,045	6,175,385	400,344	1,257,219	19.12%
7	Corporates	2,855,635	2,370,539	2,722,466	502,859	3,087,177	95.72%
8	Retail	861,255	1,082,394	796,873	61,073	592,729	69.09%
9	Secured by mortgages on immovable property	1,518,318	9,544	1,473,384	3,719	557,071	37.71%
10	Exposures in default	424,020	197,735	415,451	8,857	455,263	107.30%
11	Higher-risk categories	313,876	56,332	311,578	19,708	496,928	150.00%
12	Covered bonds	705,148	-	705,148	-	85,542	12.13%
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	0.00%
14	Collective investments undertakings	185,135	74,253	185,135	76	185,211	100.00%
15	Equity	1,115,438	276	1,115,438	276	2,243,660	201.10%
16	Other items	6,001,896	-	6,014,206	1,789	4,302,804	71.52%
17	**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**			
18	**Total as at 31/12/2018**	**45,153,993**	**17,721,046**	**50,151,056**	**1,190,276**	**15,959,848**	**31.09%**
	Total as exposure	**62,875,039**		**51,341,332**			

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 exposures 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:

- over-the-counter (OTC) financial and credit derivatives;
- SFTs Securities Financial Transactions (repurchase agreements and securities lending);
- 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. In 2019, 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 OTC 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; the Group adopts policies to reduce counterparty risk with institutional counterparties, by entering into netting agreements according to the international ISDA and ISMA standards and 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.

As at the date of this document, no operational limits exist for counterparty credit exposures. Since 2016, the Group has also planned the monitoring of RWAs for counterparty risk in the RAF.

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, is currently being defined for the identification and management of such 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-2019		Dec-2018	
	EAD post CRM	Capital Requirements	EAD post CRM	Capital Requirements
Market Value Method				
Derivatives and op. with reg. LT				
of which: Standardized Method	1,260,004	37,169	1,779,037	38,702
of which: IRB Method	426,584	446	306,109	22,988
Total M. Market Value	**1,686,589**	**37,614**	**2,085,146**	**61,691**
Integral Method				
Sft operations				
of which: Standardized Method	2,041,538	47,970	2,661,779	63,379
of which: IRB Method	332,773	18,928	425,362	1,066
Total Integral Method	**2,374,311**	**66,898**	**3,087,142**	**64,445**
Total	**4,060,900**	**104,512**	**5,172,288**	**126,136**

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.

Tab. 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	x	1,890,453	1,512,207	x	x	1,686,589	701,206
9	Financial collateral comprehensive method (for SFTs)	x	x	x	x	x	2,374,311	605,200
11	**Total as at 31/12/2019**	**x**	**1,890,453**	**1,512,207**	**x**	**x**	**4,060,900**	**1,306,406**

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

Tab. 6.2.2 (EU CCR2) – CVA capital charge

		Dec-19	
		Exposure value	RWAs
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**	**588,550**	**356,437**
EU4	Based on the original exposure method	-	-
5	**Total subject to the CVA capital charge**	**588,550**	**356,437**

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).

Tab. 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	833	-	-	-	-	-	-	-	-	2,769	-	-	-	-	3,602	-
2	Regional governments or local authorities	-	-	-	-	12,231	-	-	-	-	-	-	-	-	-	12,231	-
3	Public sector entities	-	-	-	-	-	-	-	-	-	5,949	1	-	-	-	5,951	-
4	Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Institutions	-	737,150	314,177	-	787,272	-	1,143,392	-	-	10,883	-	-	-	-	2,992,874	-
7	Corporates	-	-	-	-	-	-	-	-	-	242,458	-	-	-	-	242,458	-
8	Retail	-	-	-	-	-	-	-	-	73	-	-	-	-	-	73	-
	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Exposures in default	-	-	-	-	-	-	-	-	-	37	3	-	-	-	40	-
	Higher-risk categories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Collective investment undertakings	-	-	-	-	-	-	-	-	-	44,313	-	-	-	-	44,313	-
	Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	**Total as at 31/12/2019**	**833**	**737,150**	**314,177**	**-**	**799,503**	**-**	**1,143,392**	**-**	**73**	**306,410**	**5**	**-**	**-**	**-**	**3,301,542**	**-**
	Total as at 31/12/2018	**609**	**1,408,943**	**438,178**	**-**	**661,408**	**-**	**1,664,413**	**-**	**-**	**267,257**	**9**	**-**	**-**	**-**	**4,440,817**	**-**

Table 6.2.4 shows the gross positive fair 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 value transactions. The net "netted fair value" indicates the positive fair value amount remaining after the nettings.

Tab. 6.2.4 – (EU CCR5-A) – Impact of netting and collateral held on exposure values

	a Gross Positive Fair value (book values)	b Effect of nettings agreements	c Netted Fair value	d Effect of collateral arrangements	e Net Credit Exposure
Derivatives as at 31/12/2019	**5,481,300**	**-2,683,268**	**2,798,032**	**2,675,493**	**122,539**
Derivatives as at 31/12/2018	**4,442,478**	**-1,452,517**	**2,989,962**	**2,765,073**	**224,889**

The figures shown in the table are represented only by derivatives with netting agreements.

Table 6.2.5 shows the breakdown of the gross positive fair value of OTC derivatives by type of underlying.

Tab. 6.2.5 – Derivatives: breakdown of positive fair value by type of underlying

	Interest rates	Foreign currencies and gold	Equity securities	Credits	Other	Total
Derivatives as at 31/12/2019	**5,533,540**	**34,322**	**110,874**	**8,171**	**26,973**	**5,713,880**
Derivatives as at 31/12/2018	**4,417,717**	**36,262**	**176,244**	**14,596**	**30,125**	**4,674,944**

The figures shown in the table are represented only by derivatives with netting agreements.

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. 6.2.6 – (EU CCR5-B) – Composition of collateral for exposures to CCR

	Dec-19		Dec-18	
	Real collateral on SFT	Real collaterals on derivatives	Real collateral on SFT	Real collaterals on derivatives
Standardised Approach				
Integral Method	1,716,071	23,949,931	1,721,628	31,166,387
Simplified method	-	-	-	-
Standard total	**1,716,071**	**23,949,931**	**1,721,628**	**31,166,387**
AIRB Approach				
Substitution principle	-	-	-	-
AIRB total	**-**	**-**	**-**	**-**
Total	**1,716,071**	**23,949,931**	**1,721,628**	**31,166,387**

The table 6.2.7 shows the notional values of credit derivative contracts, by portfolio (banking and trading book) and the role played by the Montepaschi Group (buyer/ seller of protection). For more details on derivatives, see Part E – Section 2, 1.2 – Market Risk -1.3.1.B Derivative instruments of the Consolidated Financial Statements 31.12.2019.

Tab. 6.2.7 – (EU CCR6) – Credit derivatives exposures

	Credit derivative hedges		Other Credit derivatives
Notionals	Credit default products	Protection sold	
Total rate of return swaps	-	-	4,643,446
Total rate of return swaps	-	-	
Total notionals	**-**	**-**	**4,643,446**
Fair value			
Positive Fair value positivo	**-**	**-**	**8,171**
Negative Fair value	**-**	**-**	**130,209**

The following table provide a comprehensive picture of the institution's exposures to CCPs: in particular, the template includes all types of exposures (due to operations, margins, and contributions to default funds) and related capital requirements.

Tab.6.2.8 – (EU CCR8) – Exposures to CCPs

		Dec-19	
		EAD post CRM	RWAs
1	**Exposures to QCCPs (total)**	×	**27,310**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	1,051,327	27,310
3	(i) OTC derivatives	-	-
4	(ii) Exchange-traded derivatives	-	-
5	(iii) SFTs	412,010	8,240
6	(iv) Netting sets where cross-product netting has been approved	639,317	19,070
7	Segregated initial margin	435,299	×
8	Non-segregated initial margin	-	-
9	Prefunded default fund contributions	493,471	14,039
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 considered it appropriate to apply the theoretical and actual backtesting methods and integrate these into the Group's management reporting system.

The first type of test (theoretical backtesting) has a stronger statistical significance in reference to measuring the accuracy of the VaR model ("uncontaminated test").

The second type of test (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.

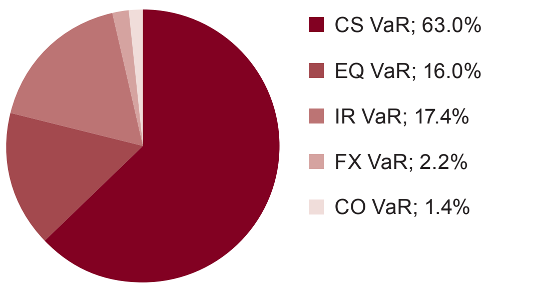
MPSCS and, to a lesser extent, the Finance, Treasury & Capital Management Area (FTCMA hereinafter) manage a proprietary portfolio which takes trading positions on interest rates and credit. In general, interest rate positions are taken by purchasing or selling bonds, and by creating positions in listed 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 2019, the market risks of the Group's Regulatory Trading Book showed, in terms of VaR, a

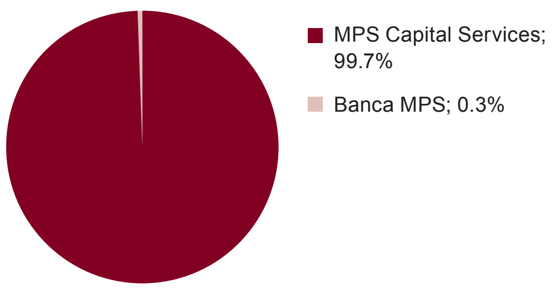
performance influenced by the subsidiary MPS Capital Services, mainly for own trading activities in the CS-IR segment (transactions in Italian government bonds and long futures) and, to a lesser extent, client-driven activities in the EQ segment (options and equity futures on the main market indices). The Parent Company's portfolio contribution to total VaR was negligible.

The volatility of the VaR during the year, down from 2018, was due to the trading activities of the subsidiary MPS Capital Services, linked to cycles of auctions on short-term Italian Government Bonds. Today, the VaR is sensitive to changes in the short-term exposure of the Italian credit spread given that it incorporates, in the tail scenarios recorded between May and June 2018, a marked widening of the yields on Italian Government bonds, more significant on the short-term than the long-term component (i.e. increase in yields with flattening of the curve. The gradual increase of VaR in the last quarter of the year related to the increase in the exposure of the Italian government securities, with a total duration of less than one year. Note that in August 2019, a new tail scenario entered the historical simulation VaR model, relating to the increase in the Italian credit spread due to the intervening crisis in the government.

MPS Group: Trading Book
VaR by Risk Factor as at 31/12/2019



MPS Group: Trading Book
VaR by Bank as at 31/12/2019



VaR breakdown

A breakdown of VaR by risk factors shows that 63% of the Group's portfolio was allocated to credit-spread risk factors (CS VaR), 17.4% was absorbed by interest rate risk factors (IR VaR), 16% by equity risk factors (EQ VaR), 2.2% by foreign exchange risk factors (FX VaR), and the remaining 1.4% by commodity risk factors (CO VaR).

With regard to the legal entities, MPS Capital Services accounted for 99.7 and the Parent Company for 0.3% of overall risk as at 31 December 2019.

Group VaR

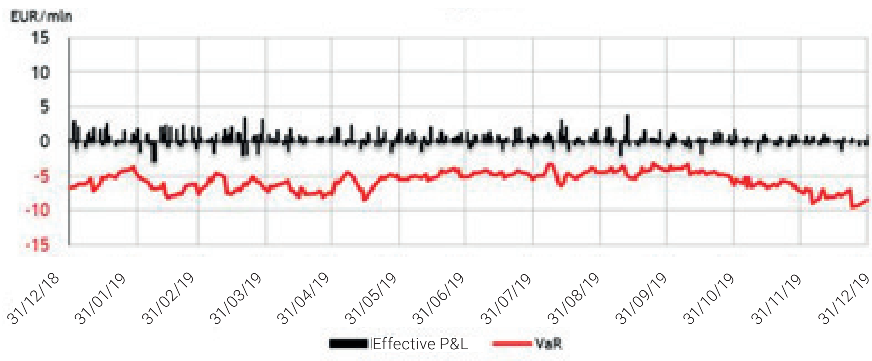
In 2019, the Group's VaR in the Regulatory Trading Book ranged between a low of EUR 3.28 mln recorded on 23 September 2019 and a high of EUR 9.57 mln on 23 December 2019 with an average value registered of EUR 5.66 mln. The Regulatory Trading Book VaR as at 31 December 2018 amounted to EUR 8.72 mln.

Gruppo Montepaschi
VaR PNV 99% 1 day in EUR/mln

	VaR	Data
End of Period	8.72	31/12/2019
Min	3.28	23/09/2019
Max	9.57	12/12/2019
Average	5.66	

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: Trading Book Effective Backtesting



The backtesting shows no exceptions in 2019.

The following table display the components of own funds requirements under the standardised approach for market risk.

Tab. 7 – (EU MR1) – Market Rrisk under the standardised approach

		Dec-19	
		RWA	Capital requirements
1	Interest rate risk (generic and specific)	1,315,656	105,252
2	Equity risk (generic and specific)	680,874	54,470
3	Exchange risk	176,461	14,117
4	Commodity risk	122,635	9,811
	Options		
5	Simplified Method	-	-
6	Delta-Plus Method	129,726	10,378
7	Scenario Method	-	-
8	**Securitisation (specific risk)**	**220,933**	**17,675**
9	**Total**	**2,646,285**	**211,703**

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 (risk limits and risk tolerance) assigned to the Group overall and to the individual legal entities within the Risk Appetite Statement;
- risk control and management processes, geared toward bringing about adequate initiatives for optimising the risk profile and activating any necessary corrective actions in the case of exceptions from and/or misalignments with the IRRBB Strategy.

In its governance function, the Parent Company therefore defines criteria, policies, responsibilities, processes, limits and instruments for rate risk management.

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 Basel guidelines, 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.

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.

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.

In addition, the Montepaschi Group incorporates within rate risk measurements a simplified behavioural model which takes into account the aspect of residential mortgage prepayment (so-called prepayment risk).

In 2019, 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 2019 project activities related to the introduction of an approach for the treatment of non-performing loan items, net of their allowance for doubtful debts, 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-19	Dec-18	Dec-19	Dec-18
Eur +100bp	166.01	130.16	155.02	160.18
Usd +100bp	-1.22	-3.55	-1.34	0.48
Other +100bp	-0.08	-0.06	1.67	0.56
Total +100bp	**164.71**	**126.56**	**155.34**	**161.22**
Eur -100bp	-161.57	-25.59	-100.50	-134.91
Usd -100bp	1.33	3.83	-0.31	-0.47
Other -100bp	-0.06	-0.12	-0.44	-0.62
Total -100bp	**-160.29**	**-21.87**	**-101.24**	**-136.00**

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 2019, suggests a profile of exposure to rate reduction risk with a shift of +100 bp in the interest rate curve, total sensitivity of the economic value stands at +164.71 Eur/mil (+126.56 Eur/mln at 2018).

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.4 Information 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 9 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

Amounts as at 31.12.2019

Type of exposure / values	Book value		Fair value		Market value	Gain/losses realized		Gain/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	10,022	848,962	12,732	X	12,732	-	864	X	X
B. Financial assets available for sale	995	243,385	995	243,385	995	-	-7,304	11,624	-55,716
C. Financial assets measured at fair value through other comprehensive income: other financial assets measured at fair value as per mandatory requirements	-	9,515	-	9,515	-	67	-	-	-

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 140.4 mln) not intended for trading purposes and therefore included in Financial assets measured at fair value through profit and loss for accounting purposes, as summarized in table 9.2.

Tab. 9.2 – Units of UCITS: breakdown by main category

	Dec-2019	Dec-2018
Hedge Funds	398	1,030
Private equity	75,133	74,944
Immobiliari	8,667	14,917
Creditizi NPE	56,242	41,705
Total	**140,440**	**132,596**

The units of UCITS relate mostly to 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. 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 exposures.

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-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		

Dec-18

	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	**44,144,864**	**32,557,268**			**87,406,103**	**12,962,802**		
Equity instruments	57	-	57	-	504,965	-	510,576	-
Debt securities	12,075,133	10,888,955	11,991,391	10,860,882	13,982,979	10,670,778	13,697,962	10,494,961
of which: covered bonds	*681,346*	*572,643*	*615,680*	*519,426*	*34,520*	*31,074*	*34,432*	*30,986*
of which: asset-backed securities	*150,705*	-	*150,705*	-	*2,228,310*	*113,623*	*2,199,754*	*113,622*
of which: issued by general governments	*9,865,303*	*9,833,814*	*9,833,042*	*9,801,553*	*10,330,069*	*10,092,650*	*10,187,743*	*9,971,692*
of which: issued by financial corporations	*1,405,085*	*991,304*	*1,374,983*	*945,333*	*3,347,168*	*471,448*	*3,216,278*	*464,901*
of which: issued by non-financial corporations	*238,506*	*143,532*	*238,766*	*143,793*	*228,955*	*52,648*	*227,403*	*53,262*
Other assets	32,069,674	21,425,891			73,638,753	2,548,088		

As at 31 December 2019 the Montepaschi Group registered Euro 44.78 bn of encumbered financial assets, accounting for approximately 34% of total assets, and mainly attributable to other assets (81%), 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 are remained essentially stable compared to the previous exercise. Other assets with the same accounting value as the unencumbered assets, amounting to Euro 73.6 bn as at the end of December 2019, mainly consist of loans other than loans on demand (82%). The table below shows the amount of encumbered and unencumbered collateral received 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 63% of off-balance sheet assets - mainly consisting of debt securities received as collateral - were encumbered compared to 59% 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 36% for 2019. At the end of 2018 it was approximately 35%.

Tab. 10.2 – Collateral received

	Dec-19				Dec-18			
			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	**6,222,763**	**6,062,018**	**3,578,182**	**3,501,654**	**5,113,193**	**4,853,447**	**3,529,597**	**3,375,346**
Loans on demand	-	-	-	-	-	-	-	-
Equity instruments	27,234	-	18,940	-	204,402	-	27,516	-
Debt securities	*6,200,531*	*6,062,018*	*3,559,241*	*3,501,654*	*4,883,472*	*4,853,447*	*3,413,966*	*3,375,346*
of which: covered bonds	-	-	-	-	-	-	*250,778*	*250,778*
of which: asset-backed securities	-	-	*20,775*	*800*	-	-	*28,547*	-
of which: issued by general governments	*5,262,609*	*5,260,643*	*3,428,634*	*3,428,634*	*4,348,372*	*4,343,412*	*3,195,995*	*3,159,084*
of which: issued by financial corporations	*938,525*	*905,372*	*102,693*	*61,362*	*500,059*	*485,152*	*264,971*	*236,754*
of which: issued by non-financial corporations	*25,518*	*16,277*	*2,073*	*251*	*30,649*	*18,064*	*4,863*	*1,805*
Loans and advances other than loans on demand	-	-	-	-	-	-	-	-
Other collateral received	-	-	-	-	-	-	-	-
Own debt securities issued other than own covered bonds or asset-backed securities	**4,545,697**	-	**410,638**	-	**3,852,297**	-	**1,190,325**	-
Own covered bonds and asset-backed securities issued and not yet pledged			**3,738,883**	**601,217**			**6,101,383**	**1,641,219**
Total assets, collateral received and own debt securities issued	**55,255,090**	**34,332,584**			**53,698,613**	**38,816,366**		

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-19		Dec-18	
	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	38,578,743	48,670,065	37,111,882	46,782,362

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 126% 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.

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 (of the traditional type, as the Group has not engaged in any synthetic securitisations) 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);
- securitisation of **non-performing loans:**
  - Norma Srl 2017 (2017, Multioriginator)
  - Siena NPL 2018 Srl (2017, BMPS, MPSCS, MPSLF).

It should be noted that in the first half-year of 2019, the Casaforte transaction was completed with the early redemption of the securitised loan and of the notes.

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 vehicle structure ensures its independence. The remaining debt balance amounted to EUR 1.50 bn as at 31/12/2019 (19,710 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 of a portfolio of performing loan agreements granted to Italian small medium enterprises, in the amount of EUR 2,258.4 mln, regulated pursuant to Regulation (EU) 2402/2017. As at 31 December 2019, the remaining debt was EUR 1,731.0 mln, for a total of 20,241 loan agreements.

Following the acquisition of the portfolio, which occurred on 12 April 2019, the Vehicle issued, on 19 June 2019, ABS notes in the classes hereinafter indicated (in parenthesis the rating attributed by the Fitch and DBRS agencies as at 31 December 2019):

- Class A1 notes (AA and AAA) for a nominal amount of EUR 187.3 mln, of which EUR 332.1 mln were redeemed;
- Class A2 notes (AA and AAA) for a nominal amount of EUR 813.0 mln;
- 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 of Class A2 on the market 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".

At 31 December 2019, the remaining debt (including interest on arrears accrued) on the total portfolio amounted to EUR 417.24 mln, of which EUR 80.40 mln in real estate loans and EUR 336.84 mln in shipping loans, for a total of 54 loans. Of these, the portfolio originated by the MPS Group amounted to EUR 224.5 mln (19 outstanding loans), of which EUR 127.2 mln disbursed by Banca MPS and EUR 97.3 mln in loans disbursed by MPS Capital Services.

To fund the acquisition of this portfolio, the Vehicle issued the following ABS securities (the "Notes") on 21 July 2017:

Real Estate

Class A1 series 1 for EUR 2,112,000;

Class B for EUR 40,134,000;

Class C for EUR 11,862,000;

Class D for EUR 44,626,000.

Shipping

Class A1 for USD 7,514,000;

Class B for USD 142,765,000;

Class C1 for USD 67,061,000;

Class C2 for USD 21,336,000;

Class D for USD 216,427,000.

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 loans transferred.

The placement of part of the Notes did not entail the derecognition of the underlying assets from the balance sheet of the transferring Banks, which have substantially retained all risks and rewards associated with the ownership of the assets sold.

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 2017, with a gross book value of approximately €26.1BN as at 31 December, through the Italian Recovery Fund (formerly Atlante II) managed as at 31 December 2019, by DeA Capital Alternative Funds SGR (previously by Quaestio Capital SGR). The transaction as provided for in the 2017-2021 Restructuring Plan was executed and completed by 30/06/2018. 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 2019 was €22.36 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 mln

centralised in dematerialised form at Monte Titoli S.p.A. and initially not listed on any Italian and/or foreign regulated market.

On 9 January 2018, the transfer was completed of 95% of the mezzanine notes to Quaestio Capital SGR on behalf of the Atlante Fund. 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 2019 was EUR 2,290.36 mln;
(iii) Mezzanine B notes for EUR 847.6 mln, without rating (95% of which held by the Atlante Fund); The outstanding amount as at 31 December 2019, due to the capitalisation of the interest, was about EUR 857 mln;
(iv) Junior notes for EUR 565.0 mln, without rating.

In June 2018, with the transfer of 95% of the Junior notes to Quaestio Capital SGR on behalf of the Atlante Fund, the deconsolidation of the entire securitised portfolio was completed.

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 Residential Mortgage- Backed Floating Rate Notes (also known as Residential Mortgage-Backed Securities or RMBS). All Residential Mortgage Backed Securities (RMBS) 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.

Here follows a list of the self-securitisations as at 31 December 2019:

- Self-securitisations of performing loans (mortgages):
- 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 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 through the vehicle, Siena mortgages 09 – 6 Srl.

The transaction was finalised on 30 September 2016 through the sale of a portfolio of performing loans to Italian small and medium sized enterprises, for a total of EUR 1,739.3 mln. On 3 December 2015, the subsidiary MPS Leasing & Factoring sold to the vehicle company "Siena LEASE 2016-2 S.r.l." a portfolio consisting of 13,181 performing finance leases totalling EUR 1,619.8 mln.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 securitisations in the strict sense of the term.

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 provisions set out in Chapter 5 of Title II of Part Three and Article 337 of Regulation (EU) No 575/2013 until 31 December 2019 in the version applicable on 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.

In respect of securitisations the securities of which were issued before 1 January 2019, to calculate capital adequacy for credit risk relating to securitisation transactions included in the Banking Book, the MPS Group applies the standardised approach and the IRB approach until 31 December 2019.

The SEC-ERBA set out according to the new regulatory framework and the standardised approach set out in the CRR in force as of 31 Decembre 2018 are also used to calculate the capital requirement for market risk (specific risk) relating to securitised exposures included in the Trading Book for Regulatory purposes.

Under the standardized approach, risk-weighted 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 short-term 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,*

Under the AIRB approach, the Supervisory Formula Approach (SFA) is adopted for Tranched Cover transactions, created before 1 January 2019.

Below is a list of the securitisations along with the agencies that provide their ratings.

Rating Agencies for securitizations

Type[(a)]	Rating agencies
CREDITI PERFORMING	
SIENA MORTGAGES 07-5 SERIE 1	Fitch Ratings Ltd Moody's Investors Service Ltd
SIENA MORTGAGES 07-5 SERIE 2	Fitch Ratings Ltd Moody's Investors Service Ltd
SIENA MORTGAGES 09-6 SERIE 1	Fitch Ratings Ltd Moody's Investors Service Ltd
SIENA MORTGAGES 10-7 (BMPS)	Fitch Ratings Ltd Moody's Investors Service Ltd
SIENA LEASE 2016-2 (MPS Leasing & Factoring)	Fitch Ratings Ltd Moody's Investors Service Ltd
SIENA PMI 2016	Fitch Ratings Ltd DBRS Ratings Limited
SIENA PMI 2016 SERIE 2	Fitch Italia SpA DBRS Ratings GmbH

(a) Originator in brackets.

Accounting policies

The accounting of securitisation transactions completed prior to the first-time adoption (FTA) of international accounting standards is not reported in the financial statements inasmuch as the Group has made use of the optional exemption provided for by IFRS 1, which permits not re-posting financial assets/ liabilities sold or derecognised prior to 1 January 2004. Therefore, loans underlying the transactions prior to the first-time-adoption of international accounting standards have been derecognised from the transferor's balance sheet. The relative junior securities underwritten have been classified among receivables, For transactions completed subsequent to the first-time-adoption of international accounting standards, where receivables were sold to vehicle companies and in which - even with formal transfer of legal ownership of the receivables - control over the cash flows deriving therefrom and most risks and rewards are maintained, the loans that are the object of the transaction are not eliminated from the transferor's balance sheet. In this case, a payable is posted with the vehicle company net of the securities issued by the company and repurchased by the seller. The profit and loss statement also reflects the same accounting criteria, related junior notes underwritten were classified among receivables. Thus, for the purposes of calculating capital absorption, the loans are maintained in the Group's weighted assets as if they had never been sold, From an accounting point of view, self-securitisation are a sub-group within securitisations without derecognition of the underlying assets. All outstanding securitisation transactions should be considered "financing".

In 2019, no profits/losses were realised on sales as part of securitisation transactions, For accounting purposes, in the case of securitisations with derecognition, the Group would adopt IFRS 9, where the profit or loss is calculated as the difference between the consideration less the gross exposure of the assets transferred, while in the case of the transfer of assets without derecognition, no accounting impact additional to that derived from loans that have not been derecognized would be expected. 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 for following IAS 37 "Provisions, Contingent Liabilities and Contingent Assets", as they are contingent liabilities. In view of these transactions, the Parent Company allocated reserves in support of the vehicles, should such funds be needed upon occurrence of certain events, As at 31 December 2019, these reserves amounted to EUR 133,77 mln.

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 detail, 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. On a case by case basis it may, in particular, be necessary to collateralize or secure the credit exposure arising from the role itself or replace it with a third institution. Consequently, a downgrade has significant repercussions on the originating banks in terms of liquidity risk, due both to higher collateral required to maintain the typical roles of these transactions in place and the cost for outsourcing part of these roles.

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 contratto di copertura dal rischio tasso di interesse, 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.

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. 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 the course of 2013, the mitigation strategy for interest rate risk on the first Programme was restructured in order to minimise the Vehicle's exposure to market counterparties, In particular, the newly-defined strategy aims to only cover the Vehicle's net exposure to interest rate risk, as opposed to the nominal amount.

Moreover, between 2013 and 2014, part of the Covered Bond Swaps that were in effect at the time were outsourced to the market, As at 31 December 2019, there were two outstanding Covered Bond Swaps for a total amount of Euro 2bn. 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.

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	4.4
19/11/10	Loans BMPS	19,058	2.4
25/02/11	Loans BMPS	40,627	3.9
25/05/11	Loans BMPS (ex BAV)	26,804	2.3
16/09/11	Loans BMPS	27,973	2.3
14/06/13	Loans BMPS	4,259	0.4
18/09/15	Loans BMPS	15,080	1.5
31/10/16	Loans BMPS	7,630	0.7
22/12/16	Loans BMPS	1,903	0.2
03/05/18	Loans BMPS	12,401	1.3
27/02/19	Loans BMPS	16,880	1.81
16/10/19	Loans BMPS	12,008	1.27
Total		**221,334**	**22.6**

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 221 thousand mortgages for a total value of Euro 22,6 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.

In the Covered Bond, it is MPS and not the vehicle that directly issues the bonds.
As part of its first issuance programme, the Parent Company completed a total of 26 issuances, 13 of which had not yet matured or been repaid early for a total, as at 31 December 2019, of EUR 8,950 mln, of which EUR 6,286,3 mln were placed on the market, while EUR 2,663,7 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 2019 amounted to EUR 11,886,5 mln for 147,277 mortgages.

In 2019 the following securities were issued as part of the first Programme:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
29/01/19	1.00	2.00%	29/01/24
08/10/19	1.00	0.875%	08/10/26
Total	**2.00**		

As part of the second Programme, the remaining debt balance on the portfolio as at 31 December 2019 amounted to EUR 8,696,28 mln for 90,354 mortgages. The portfolio sold consists of real estate-backed, residential and commercial mortgage loans. On 27 September 2019, a portfolio containing 4,549 residential and commercial mortgage loans was sold for € 727,2, Details are reported in the table below:

Date of sale	Portfolio	Amount (€/bln)	Loans number
30/04/12	Residential Mortgages	2.385	27,047
26/06/12	Residential and Commercial Mortgages	2.478	13,993
28/08/12	Residential and Commercial Mortgages	1.402	17,353
24/09/12	Residential and Commercial Mortgages	2.474	9,870
18/02/13	Residential and Commercial Mortgages	1.287	9,033
24/06/13	Residential and Commercial Mortgages	2.148	12,771
25/03/14	Residential and Commercial Mortgages	1.464	5,645
20/10/15	Residential and Commercial Mortgages	0.977	5,671
18/07/16	Residential and Commercial Mortgages	2.011	24,162
26/08/16	Residential and Commercial Mortgages	0.813	7,211
24/03/17	Residential and Commercial Mortgages	0.789	5,799
08/05/18	Residential and Commercial Mortgages	0.685	4,718
09/11/18	Residential and Commercial Mortgages	0.470	3,002
27/09/19	Residential and Commercial Mortgages	0.727	4,549
Total		**20.11**	**150,824**

Management of the new Covered Bond Programme follows the proven processes and controls already adopted for management of the covered bonds Programme established in 2010.

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 2019 of EUR 7,550 mln. As part of the second Covered Bond Programme, the following issues were made in 2019:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
13/09/19	0.500	3mE + 0.90%	30/01/23
13/09/19	0.500	3mE + 0.98%	02/05/23
Total	**1.00**		

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 70 "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 70 "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 net	Exposure of which impaired	Losses for the period
RMBS	**1,439,856**	**75,252**	-
Non-performing loans	-	-	-
Mortgages	1,439,856	75,252	-
Siena Mortgages 10 - 7 (Banca MPS)	1,439,856	75,252	
ABS	-	-	-
Consumer Credit	-	-	-
CDO	-	-	-
Bonds and credit derivatives	-	-	-
Total as at 31/12/2019	**1,439,856**	**75,252**	-
Total as at 31/12/2018	**2,918,945**	**67,680**	-

Reported below are the assets underlying the securitizations originated by the Bank, included in the Banking Book and Trading Book. These securitizations involve total derecognition of underlying assets from an accounting viewpoint, with the exception of Siena Mortgages 10 – 7. The Group has not issued any synthetic securitizations so far.

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
	own	of third parties	
1. Balance-sheet exposures	**82,493**	**405,749**	**488,242**
Banking book	**68,968**	**8,898**	**77,866**
CMO	68,968	8,898	77,866
Regulatory Trading book	**13,525**	**396,851**	**410,376**
CMBS	13,525	61,544	75,069
RMBS	-	147,361	147,361
NPL	-	40,714	40,714
Consumer	-	86,075	86,075
Commercial Loan	-	61,157	61,157
2. Off-balance-sheet exposures	-	-	-
Total as at 31/12/2019	**82,493**	**405,749**	**488,242**
Total as at 31/12/2018	**97,818**	**348,886**	**446,704**

(*) 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
CMO	**24,313**	**44,655**	-	**68,968**
Mortgages	24,313	44,655	-	68,968
Total as at 31/12/2019	**24,313**	**44,655**	-	**68,968**
Total as at 31/12/2018	**30,340**	**42,398**	-	**72,738**

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	-	-	**8,898**	**8,898**
Non performin loans	-	-	8,898	8,898
Total as at 31/12/2019	-	-	**8,898**	**8,898**
Total as at 31/12/2018	-	-	-	-

Tab. 11.2.5 – Own securitised exposures by type of Securities and underlying assets – Trading Book

	Junior	Mezzanine	Senior	Total
CMO	-	-	**13,525**	**13,525**
Commercial mortgages	-	-	13,525	13,525
Total as at 31/12/2019	-	-	**13,525**	**13,525**
Total as at 31/12/2018	-	-	**25,080**	**25,080**

Tab. 11.2.6 – Third-party securitised exposures by type of Securities and underlying assets – Trading Book

	Junior	Mezzanine	Senior	Total
Consumer	**30,978**	**37,405**	**68,800**	**137,182**
Consumer loans	30,609	20,902	26,792	78,302
Utility	-	-	2,772	2,772
Auto Loans	369	16,503	34,236	51,107
credit card	-	-	5,000	5,000
Commercial Loans	-	-	**10,050**	**10,050**
Commercial Loans	-	-	10,050	10,050
NPL	-	**1,265**	**39,450**	**40,714**
Non performin loans	-	1,265	38,282	39,547
Residential mortgages	-	-	1,168	1,168
CMO	**9,879**	**60,902**	**76,581**	**147,361**
Residential mortgages	9,879	60,902	76,581	147,361
RMBS	**5,913**	**26,315**	**29,316**	**61,544**
Total as at 31/12/2019	**46,770**	**125,886**	**224,196**	**396,851**
Total as at 31/12/2018	**72,232**	**86,724**	**189,929**	**348,886**

Tab. 11.2.7 – Total securitised exposures by Banking/Trading and related capital requirements (standard approach)

Type	Exposure	Requirement
Banking Book	104,212	12,469
of which Standardised Approach	*8,898*	*712*
of which Airb Approach	*95,314*	*11,757*
Regulatory Trading Book	410,376	17,675
Total as at 31/12/2019	**514,588**	**30,144**
Total as at 31/12/2018	**517,268**	**32,532**

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	-	-	-	44,655	24,313	-	-	68,968
Third-party Securitisations	-	-	8,898	-	-	-	-	8,898
Re-securitisation	-	-	-	-	-	-	-	-
Total as at 31/12/2019	**-**	**-**	**8,898**	**44,655**	**24,313**	**-**	**-**	**77,866**
Total as at 31/12/2018	**70,564**	**-**	**-**	**42,398**	**30,340**	**-**	**-**	**143,302**

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 26,346 €/th.

Tab. 11.2.9 – Capital requirements of securitised exposures by risk weight bands – Banking Book

Type	Risk weight band 0%	20%	50%	100%	225%	650% 1250%	1250% No Rating	Total
Own Securitisations	-	-	-	6,537	4,260	-	-	10,797
Third-party Securitisations	-	-	712	-	-	-	-	712
Re-securitisation	-	-	-	-	-	-	-	-
Total as at 31/12/2019	**-**	**-**	**712**	**6,537**	**4,260**	**-**	**-**	**11,509**
Total as at 31/12/2018	**959**	**-**	**-**	**6,207**	**5,316**	**-**	**-**	**12,482**

The table does not include capital requirements relating to Tranched cover transactions, amounting to 960 €/th.

Tab. 11.2.10 – Securitised exposures by risk weight bands – Trading Book

Type	Risk weight band									Total
	0%	10%	12-18%	20-35%	40-75%	80-100%	150-350%	650% 1250%	1250% No Rating	
Own Securitisations	-	-	-	13,525	-	-	-	-	-	13,525
Third-party Securitisations	13,140	53,944	85,586	95,362	64,106	68,496	12,543	3,674	-	396,851
Re-securitisation	-			-	-	-	-	-	-	-
Total as at 31/12/2019	**13,140**	**53,944**	**85,586**	**108,887**	**64,106**	**68,496**	**12,543**	**3,674**	**-**	**410,376**
Total as at 31/12/2018	**18,848**	**-**	**-**	**193,865**	**103,150**	**45,297**	**5,010**	**7,796**	**-**	**373,967**

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

Type	Risk weight band									Total
	0%	10%	12% 18%	20% 35%	40% 75%	80% 100%	150% 350%	650% 1250%	1250% Privo di Rating	
Own Securitisations	-	-	-	216	-	-	-	-	-	216
Third-party Securitisations	-	432	1,016	1,588	2,581	5,426	2,742	3,674	-	17,458
Re-securitisation	-	–	–	-	-	-	-	-	-	-
Total as at 31/12/2019	**-**	**432**	**1,016**	**1,804**	**2,581**	**5,426**	**2,742**	**3,674**	**-**	**17,675**
Total as at 31/12/2018	**-**	**-**	**-**	**3,102**	**4,126**	**3,624**	**1,402**	**7,796**	**-**	**20,050**

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.

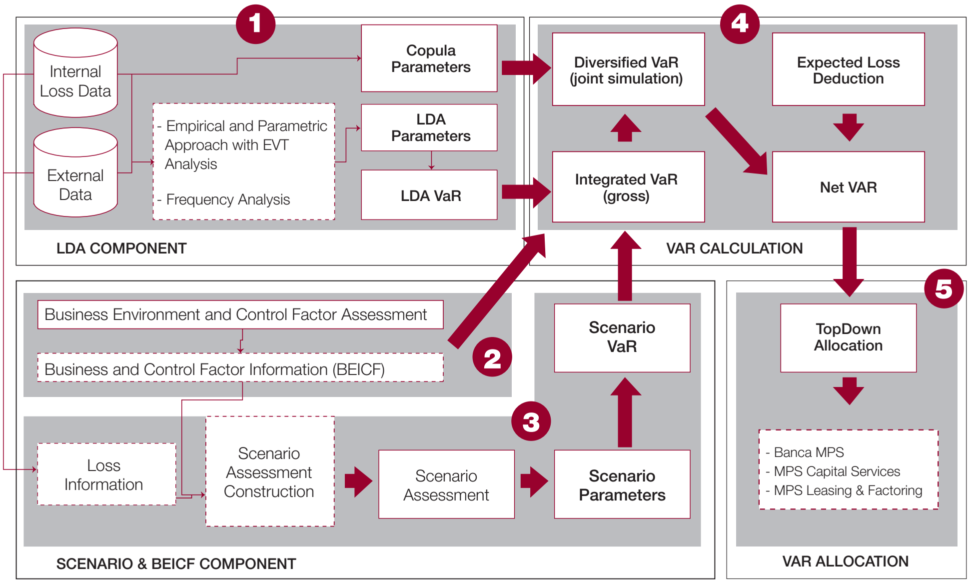
All the domestic banking and financial components are incorporated in the scope of advanced measurement approach (AMA). For remaining components and foreign companies, the foundation model has been adopted.

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 2019 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;

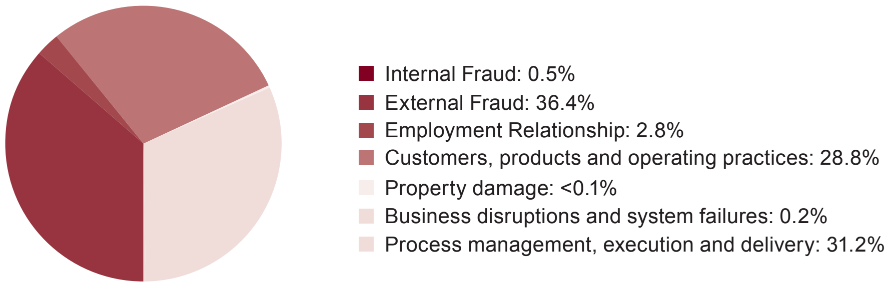
Customers, products and operating practices: losses arising from non-fulfilment of professional obligations with customers or from the nature and characteristics of the product or service provided;

- 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.

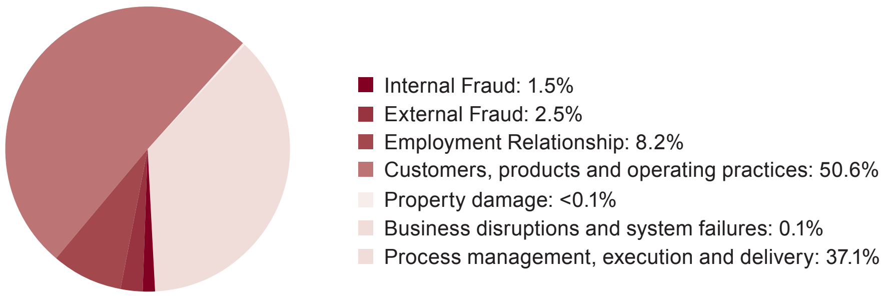
As at 31 December 2019, the number of operational risk events and the losses were up compared to December 2018. This increase in the number is primarily due to the redemptions in favour of the customers, tied to reporting activities to third parties regarding diamond operations. The type of events with the greatest P&L impact refer to the violation of professional obligations towards customers (category "Customers, products and operating practices": approximately 51% of the total) and to shortcomings in the completion of operations or process management (category "Execution, delivery and process management": 37% 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 the reimbursement scheme for customers referred to third-party companies for the purchase of diamonds.

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 - 31/12/2019

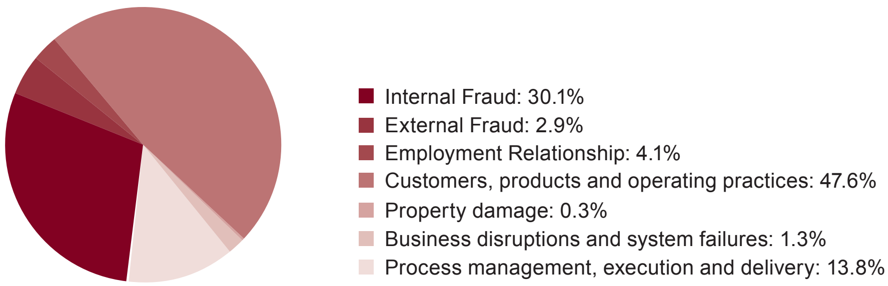


Losses breakdown
Montepaschi Group - 31/12/2019



The graph below shows the breakdown of regulatory requirements by class of risk:

Regulatory Capital Requirements
Montepaschi Group - 31/12/2019



The Regulatory Requirement as at 31 December 2019 was up compared to December 2018, 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-2019	Dec-2018
Foundation approach	7,743	11,734
Standardised approach	-	-
Advanced Measurement approach	817,877	753,264
Total Operational Risk	**825,620**	**764,998**

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, Marco Morelli, 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 2016" 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; 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 2020

Marco Morelli

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 2020

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 (pag.54-55) Reference to the section F of Notes - Financial Statement
Art. 438 - *Capital requirement*	*Par. a*	**Chapter 4** - Capital requirements, liquidity ratios and leverage
	Par. b	1. **Executive Summary**; 2. **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)
	Slotting criteria	**Chapter 4** - Capital requirements, liquidity ratios and leverage (Tab. 4.3)
Art. 439 - *Exposure to counterparty credit risk*	*Par. a; b; c; d; e; f; g; h; i*	1. **Chapter 6** - Counterparty risk; 2. **Reference to the section E of Notes** - Financial Statement
Art. 440 - *Capital buffers*	*Par.a;*	**Chapter 4** - Section: minimum capital requirements (Tab. 4.8.1 - 4.8.3.4)
	Par. b	1. **Executive Summary**; 2. **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 31.12.2019, 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. 5.4.1
	Par. d; e; f; g; h; i;	2. **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*		1. **Chapter 12** - Operational risk 2. **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"*		1. **Chapter 8** - Exposure to interest rate risk on positions not included in the Trading book 2. **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: General information
	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. 4.7.1; 4.7.2;4.7.3)
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; f;	**Chapter 5.3** -Tab 5.3.1; from Tab.5.3.2 till Tab 5.3.10
	Par. g	**Chapter 5.4** - Tab. 5.4.12
	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"; Backtesting;
	Par. j	**Chapter 5.3** - (tab. 5.3.11 e 5.3.12)
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"*		1. **Chapter 12** - Operational risk 2. **Reference to the Section E of Notes** - Financial Statements
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

Orientamenti sugli obblighi di informativa EBA/GL/2016/11		*Riferimento nel Pillar III*	
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. 5.4.7
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. 5.4.7
EU CR1-C	Credit quality of exposures by geography	5.4 Credit Risk: credit quality	tab. 5.4.6
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 5.4.3 - 5.4.4
EU CR2-A	EU CR2-A – Changes in the stock of general and specific credit risk adjustments	5.4 Credit Risk: credit quality	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. 5.4.9
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
EU CR3	CRM techniques – Overview	5.5 Credit Risk: use of risk mitigation techniques	tab. 5.5.3

Appendix 2: Details of Information provided in compliance with EBA Guidelines GL 2016/11

Orientamenti sugli obblighi di informativa EBA/GL/2016/11		*Riferimento nel Pillar III*	
EU CRC	Qualitative disclosure requirements related to credit risk mitigation techniques	5.5 Credit Risk: use of risk mitigation techniques	qualitative information
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	tab 5.3.13
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 6.2.7
EU CCR2	CVA capital charge	6.1 Counterparty Risk: general disclosure	tab 6.2.5
EU CCR3	Standardised approach – CCR exposures by regulatory portfolio and risk	6.1 Counterparty Risk: general disclosure	tab 6.2.8
EU CCR4	IRB approach – CCR exposures by portfolio and PD scale	N/a	
EU CCR5-A	Impact of netting and collateral held on exposure values	6.1 Counterparty Risk: general disclosure	tab 6.2.2
EU CCR5-B	Composition of collateral for exposures to CCR	6.1 Counterparty Risk: general disclosure	tab 6.2.6
EU CCR6	Credit derivatives exposures	6.1 Counterparty Risk: general disclosure	tab 6.2.4
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	

n.a. *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.d. *Not available*

Appendix 3: Details of Information provided in compliance with EBA Guidelines GL 2018/01

Orientamenti sulle informative uniformi delle disposizioni transitorie in materia di IFRS 9 EBA/GL/2018/01		*Riferimento nel Pillar III*
IFRS 9	*"Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs"*	**Chapter 4 - Capital requirements, liquidity ratios and leverage**

Appendix 4: Details of Information provided in compliance with EBA Guidelines GL 2018/10

Guidelines on disclosure requirements EBA/GL/2018/10		*Reference to the present document Pillar 3*	
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
Template 4	*Performing and non-performing exposures and related provisions*	5.4 - Credit Risk: credit quality	Tab. 5.4.5
Template 5	*Quality of NPEs by geography*	5.4 - Credit Risk: credit quality	Tab. 5.4.6
Template 6	*Credit quality of loans and advances by industry*	5.4 - Credit Risk: credit quality	Tab. 5.4.7
Template 7	*Collateral valuation – loans and advances*	5.4 - Credit Risk: credit quality	Tab. 5.4.8
Template 8	*Changes in the stock of non-performing loans and advances*	5.4 - Credit Risk: credit quality	Tab. 5.4.9
Template 9	*Collateral obtained by taking possession and execution processes*	5.4 - Credit Risk: credit quality	Tab. 5.4.10
Template 10	*Collateral obtained by taking possession and execution processes – vintage breakdown*	5.4 - Credit Risk: credit quality	Tab. 5.4.11

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

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): Tasso di perdita in caso di insolvenza (default) determinato come il rapporto tra la perdita subita su un'esposizione a causa del default di una controparte e l'importo residuo al momento del 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, not a 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.

Contacts

Head Office

Banca Monte dei Paschi di Siena S.p.A.

Piazza Salimbeni, 3

53100 Siena

Tel: 0577.294111

Investor Relations

Piazza Salimbeni, 3

53100 Siena

Email: investor.relations@mps.it

Press Relations

Piazza Salimbeni, 3

53100 Siena

Email: ufficio.stampa@mps.it

Internet

www.mps.it

MONTE DEI PASCHI DI SIENA
BANK SINCE 1472