Pillar 3 Disclosure

Update as at 31 December 2021

MONTE DEI PASCHI DI SIENA
BANK SINCE 1472

MONTIS · PASCVORVM

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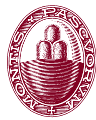
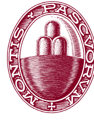


Banca Monte dei Paschi di Siena SpA
Company Head Office in Siena, Piazza Salimbeni 3, www.mps.it
Recorded in the Arezzo-Siena Company Register – Registration no. and tax code 00884060526
MPS VAT Group – VAT no. 01483500524
Member of the Italian Interbank Deposit Protection Fund. Bank Register no. 5274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



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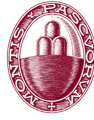


Introduction

The new Pillar 3 disclosure framework, that aims to foster the role of institutions' disclosures in promoting market discipline, entered into force as of 30 June 2021.

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.

It thus incorporates the minimum capital requirements (Pillar I) and the prudential control process (Pillar II).

In particular, the new Pillar 3 disclosure framework, in force since 30 June 2021, seeks to:

- improve clarity for users of information, by provide a single comprehensive package;
- ensure consistency and comparability among the intermediaries;
- facilitate access by users of information to institutions' key prudential data by introducing the new key metrics templates;
- facilitate technical implementation for the retrieval of information;
- increase the efficiency of disclosures and reduce costs through synergies and integration of quantitative information with supervisory reporting.

The regulatory sources of reference are:

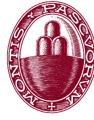
- the new EU Regulation 2019/876 (CRR2) amending EU Regulation no. 575/2013 (CRR), which, in Article 434a, mandated the EBA to develop implementing technical standards (ITS) specifying the uniform disclosure formats required under Titles II and III of Part 8 of the CRR.

The standardisation process pursued by the EBA through subsequent ITS releases (EBA/ITS/2020/04 and EBA/ITS/2021/07 – IRRBB) is not applied in the following cases, which continue to be governed by the previous guidelines:

- disclosure requirements of the IFRS 9 transitional arrangement (EBA/GL/2020/12);
- temporary information on exposures subject to measures applied due to the COVID 19 crisis (EBA/GL/2020/07).

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

Further information on the Group's risk profile, pursuant to Art. 434 of the CRR, is also published in the Consolidated Financial Report as at 31 December 2021, the Report on Corporate Governance and the

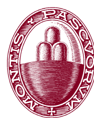


Remuneration Report.

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

The Montepaschi Group regularly publishes its Pillar 3 disclosures on its website at: english.mps.it/investors.

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



Executive Summary

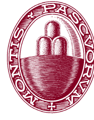
CET 1 ratio	Tier 1 ratio	Total Capital ratio
12.54% *+41 bp* *Dic-20: 12.13%*	12.54% *+41 bp* *Dic-20: 12.13%*	16.12% *+37 bp* *Dic-20: 15.75%*
Requisiti prudenziali *(Overall Capital Requirement, OCR)*		
CET1 ratio: 8.74%	*Tier 1 ratio: 10.76%*	*Total Capital ratio: 13.44%*
Totale RWA	**Leverage Ratio**	
€ 47,79 mld *-2,11 €/mld* *Dic-20: € 49,90 mld*	4.72% *+33 bp* *Dic-20: 4.39%*	
LCR	**NSFR**	
172.7% *-24 p.p* *Dic-20: 196.7%*	129.6% *+5.8 p.p* *Dic-20: 123.8%*	
Gross NPL ratio	**ROE**	
3.83% *+40 bp* *Dic-20: 3.40%*	5.2% *+29 p.p* *Dic-20: -24.0%*	

In 2021, the Montepaschi Group continued to implement the activities provided for by the Restructuring Plan and, internally, by the 2021 Risk Appetite Statement approved by the Board, with the aim of consolidating a path of normality and sustainable growth, while nevertheless having to face a general scenario that, albeit improving, is still in a state of emergency due to the ongoing COVID-19 emergency.

The Montepaschi Group was able to benefit from a generally improved scenario compared to 2020, returning to profitability, with the main contribution coming from lower-than-expected default inflows, due also to the extension of government support to the economy.

Despite the absence of a capital strengthening transaction, initially planned over the course of 2021 and then postponed, the Group managed to meet its capital ratio targets, keeping the risk profile under control, thanks to the positive effects of the capital management actions implemented during the year.

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. As of 31 December 2021, the Group's CET1 ratio stood at 12.54%, 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

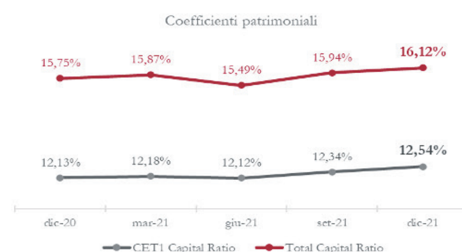
It should also be noted that as at 31 December 2021 the Group also met the P2G requirement.

Likewise, the Tier 1 ratio and Total capital ratio were higher than the Overall Capital Requirement and P2G requirement.

Capital adequacy indicators **from 31 December 2021**	**CET 1 Ratio**	**Tier 1 Ratio**	**Total Capital Ratio**
Pillar I minimum Requirements (art. 92 CRR)	*4.50%*	*6.00%*	*8.00%*
TSCR (P1R+P2R)	6.05%	8.06%	10.75%
Combined Buffer Requirement (CBR)	*2.69%*	*2.69%*	*2.69%*
OCR (TSCR+CBR)	**8.74%**	**10.75%**	**13.44%**
Coefficienti di capitale al 31-12-2021	**12.54%**	**12.54%**	**16.12%**

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

The Group's capital ratios improved compared to 31-12-2020, largely driven by the profit for the period and a reduction in regulatory RWAs.

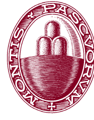


The Group's overall capital adequacy at the end of 2021 is attributable to both internal, structural management actions as well as the transitional regulatory effects that were only deferred.

In the first case, it is important to underline the above-target internal generation of capital as a result of:

- higher income from fees and commissions,
- lower cost of credit owing to default flows well below expected levels, derisking of non-performing loans of significant amounts as well as a number of important extraordinary write-backs,
- asset optimisation transactions achieved mainly by focusing new flows to companies on medium /long term loans backed by government guarantees.

In the second case, it should be remembered that the Capital Plan drafted in 2021 and sent to the ECB provided for a capital strengthening transaction that was deemed necessary in order to cover the prospective shortfall that had emerged in view of two macro effects: the implementation of the remaining phase-in due to the First Time Adoption of IFRS9, which will have a negative impact on CET1 in both 2022 and 2023, and an expected increase in RWAs on Credit Risks resulting from both the adoption of the 2019 Model Change recalibrated on the new Definition of Default (New DoD) and the alignment with the EBA Guidelines on PD/LGD/EAD. At the end of 2021, only part of the effects related to the New DoD had been implemented. The residual impact is expected mainly at the end of 2022 due to the alignment with the EBA Guidelines on



PD/LGD/EAD.

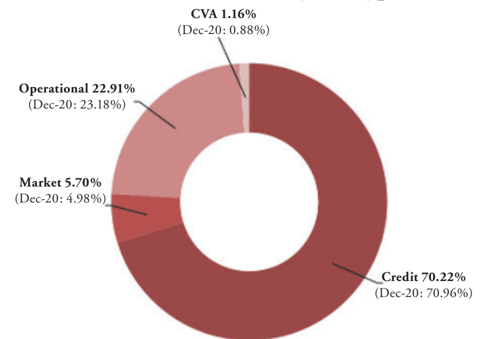
From a forward-looking perspective, uncertainties regarding capital adequacy remain. These uncertainties have led the bank to estimate a potential prospective shortfall under inertial conditions and without a capital increase of between EUR 150 million and EUR 500 million, as communicated to the market at the time of the approval of the financial results as at 31-12-2021.

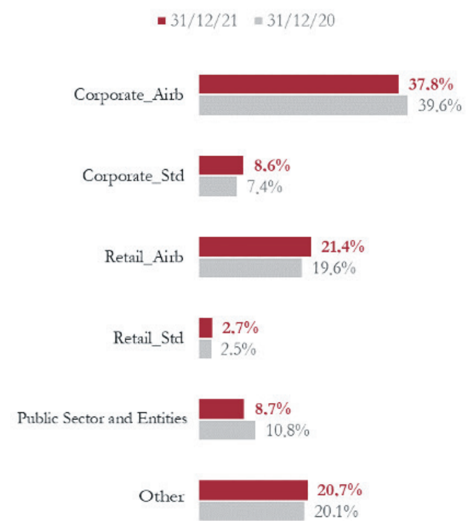
With regard to the SRB (*Single Resolution Board*), the absence of the capital strengthening transaction together with the due diligence period in the second half of the year, made it impossible to access the bond market according to the funding plan approved by the Board of Directors. This led to a temporary breach of the MREL indicators on 01-01-2022, which will only be reabsorbed over the course of 2022.

RWAs decreased by EUR 2.1 bn compared to 31 December 2021. In particular, there was a reduction in RWAs relating to credit and counterparty risk and operational risk, partially offset by a slight increase in RWAs for market and CVA risks.

The breakdown of RWAs by risk type is concentrated mainly on Credit Risk (70%) and are focused mainly on corporate and retail exposures subject to AIRB approach (37.8% and 21.4%, respectively).

Breakdown of RWAs by risk type





In terms of liquidity adequacy, the Montepaschi Group did not show any particular signs of strain during 2021.

The Liquidity Coverage Ratio (LCR) stood at 172.7% as at 31 December 2021, well-above the minimum regulatory requirement applicable (100%) though lower compared to December 2020 (196.7%).

The Net Stable Funding Ratio (NSFR) stood at 129.6% as at 31 December 2021, registering an increase compared to 31 December 2020 (123.8%) and, once

again, without showing any critical aspects with respect to the minimum regulatory requirement of 100% which entered into force as of June 2021.

The Group also determined its internal Risk Appetite Framework (RAF) for 2021.

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

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

With regard to Group indicators, the following were identified in 2021: Capital Adequacy, Liquidity Adequacy, Leverage, Asset Quality, Performance, Macroeconomic and Market-based, Internal Controls and Related Party. For each category, the indicators used to monitor the different areas were defined and updated taking also account of the persisting impacts from the Covid pandemic.

Within the RAS framework, the risk management and measurement systems implemented by the Montepaschi Group allow for continuous monitoring of the risk profile and regular reporting to the Corporate Bodies, with the activation of appropriate escalation and remediation procedures if the relevant thresholds are exceeded.

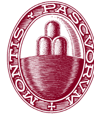
The RAS risk tolerance and risk capacity thresholds are calibrated to ensure consistency with the applicable minimum regulatory thresholds and also take account of additional prudential buffers.

At the end of 2021, all the internal RAS obligations for capital & liquidity adequacy KRIs had been complied with and, as mentioned above, so had the regulatory limits.

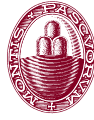
As for the Montepaschi Group's exposures to Related Parties and Connected Persons according to national regulations, as at 31 December 2021 all regulatory and more prudential internal limits defined within the RAS had been complied with.

In conclusion, the Montepaschi Group's overall risk profile in 2021 was therefore in line with the internal objectives and corporate strategy adopted, and the risk management and measurement systems proved adequate for monitoring the risk profile.

Finally, it should be noted that 2021 was also characterised by the Montepaschi Group's participation in the EBA EU-wide Stress Test regulatory exercise, which - pending the full implementation of the Restructuring Plan objectives - reconfirmed the weakness of the MPS business model in adverse scenarios,



at least until the capital strengthening transaction is completed. This transaction thus remains a fundamental milestone to ensure future capital adequacy, the coverage of the residual prospective shortfalls highlighted above and full recovery in terms of MREL ratios.



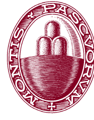
Annex I - Disclosure of key metrics and overview of risk-weighted exposure amounts

EU OV1: Overview of total risk exposure amounts

		RWA		Capital requirements	
		Dec-21	Set-21	Dec-21	Set-21
1	**Credit risk (excluding CCR)**	**31,742,053**	**30,987,843**	**2,539,364**	**2,479,027**
2	Of which the standardised approach	11,776,629	12,133,762	942,130	970,701
3	Of which the foundation IRB (FIRB) approach	-	-	-	-
4	Of which: slotting approach	1,265,125	1,328,243	101,210	106,259
EU 4a	Of which: equities under the simple riskweighted approach	-	-		
5	Of which the advanced IRB (AIRB) approach	17,691,815	17,525,838	1,415,345	1,402,067
6	**Counterparty credit risk - CCR**	**1,624,023**	**2,245,053**	**129,922**	**179,604**
7	Of which the standardised approach	849,751	1,039,354	67,980	83,148
8	Of which internal model method (IMM)	-	-	-	-
EU 8a	Of which exposures to a CCP	35,726	47,099	2,858	3,768
EU 8b	Of which credit valuation adjustment - CVA	556,633	890,502	44,531	71,240
9	Of which other CCR	181,913	268,098	14,553	21,448
15	**Settlement risk**	-	-	-	-
16	**Securitisation exposures in the non-trading book (after the cap)**	**747,319**	**873,032**	**59,786**	**69,843**
17	Of which SEC-IRBA approach	724,652	843,559	57,972	67,485
18	Of which SEC-ERBA (including IAA)	16,115	16,394	1,289	1,312
19	Of which SEC-SA approach	6,552	13,079	524	1,046
EU 19a	Of which 1250%/ deduction	-	-	-	-
20	**Position, foreign exchange and commodities risks (Market risk)**	**2,724,114**	**2,777,601**	**217,929**	**222,208**
21	Of which the standardised approach	2,724,114	2,777,601	217,929	222,208
22	Of which IMA	-	-	-	-
EU 22a	**Large exposures**	-	-	-	-
23	**Operational risk**	**10,949,393**	**11,322,662**	**875,951**	**905,813**
EU 23a	Of which basic indicator approach	80,728	84,207	6,458	6,737
EU 23b	Of which standardised approach	-	-	-	-
EU 23c	Of which advanced measurement approach	10,868,665	11,238,455	869,493	899,076
24	**Amounts below the thresholds for deduction (subject to 250% risk weight) (For information)**	**2,015,771**	**1,985,759**	**161,262**	**158,861**
29	**TOTAL**	**47,786,902**	**48,206,191**	**3,822,952**	**3,856,495**

EU KM1: Key metrics template

		a	b	c	d	e
		Dec-21	Set-21	Jun-21	Mar-21	Dec-20
	Available own funds (amounts)					
1	Common Equity Tier 1 (CET1) capital	5,991,778	5,948,693	6,058,299	5,957,629	6,053,319
2	Tier 1 capital	5,991,778	5,948,693	6,058,299	5,957,629	6,053,319
3	Total capital	7,705,129	7,685,725	7,742,337	7,761,153	7,859,937
	Risk-weighted exposure (amounts)					
4	Total risk-weighted exposure amount	47,786,902	48,206,191	49,985,782	48,901,422	49,903,123
	Capital ratios (as a percentage of risk-weighted exposure amount)					
5	Common Equity Tier 1 ratio (%)	12.5385%	12.3401%	12.1200%	12.1829%	12.1301%
6	Tier 1 ratio (%)	12.5385%	12.3401%	12.1200%	12.1829%	12.1301%
7	Total capital ratio (%)	16.1239%	15.9434%	15.4891%	15.8710%	15.7504%
	Additional own funds requirements based on SREP (as a percentage of risk-weighted exposure amount)					
EU 7a	Additional own funds requirements to address risks other than the risk of excessive leverage (%)	2.7500%	2.7500%	2.7500%	2.7500%	3.0000%
EU 7b	of which: to be made up of CET1 capital (percentage points)	1.5469%	1.5469%	1.5469%	1.5469%	1.6880%
EU 7c	of which: to be made up of Tier 1 capital (percentage points)	2.0625%	2.0625%	2.0625%	2.0625%	2.2500%
EU 7d	Total SREP own funds requirements (%)	10.7500%	10.7500%	10.7500%	10.7500%	11.0000%
	Combined buffer requirement (as a percentage of risk-weighted exposure amount)					
8	Capital conservation buffer (%)	2.5000%	2.5000%	2.5000%	2.5000%	2.5000%
EU 8a	Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State (%)					
9	Institution specific countercyclical capital buffer (%)	0.0030%	0.0030%	0.0020%	0.0020%	0.0010%
EU 9a	Systemic risk buffer (%)					
10	Global Systemically Important Institution buffer (%)					
EU 10a	Other Systemically Important Institution buffer	0.1900%	0.1900%	0.1900%	0.1900%	0.1300%
11	Combined buffer requirement (%)	2.6930%	2.6930%	2.6920%	2.6920%	2.6310%
EU 11a	Overall capital requirements (%)	13.4430%	13.4430%	13.4420%	13.4420%	13.6310%
12	CET1 available after meeting the total SREP own funds requirements (%)	4.4760%	4.2776%	4.0575%	1.5116%	0.8124%
	Leverage ratio					
13	Leverage ratio total exposure measure	126,834,475	129,024,289	131,655,473	129,883,491	137,983,522
14	Leverage ratio	4.7240%	4.6110%	4.6016%	4.5870%	4.3870%
	Additional own funds requirements to address risks of excessive leverage (as a percentage of leverage ratio total exposure amount)					
EU 14a	Additional own funds requirements to address the risk of excessive leverage (%)					
EU 14b	*of which: to be made up of CET1 capital (percentage points)*					
EU 14c	Total SREP leverage ratio requirements (%)	3.0972%	3.0972%	3.0972%		
	Leverage ratio buffer and overall leverage ratio requirement (as a percentage of total exposure measure)					
EU 14d	Leverage ratio buffer requirement (%)					
EU 14e	Overall leverage ratio requirement (%)	3.0972%	3.0972%	3.0972%		
	Liquidity Coverage Ratio					
15	Total high-quality liquid assets (HQLA) (Weighted value - average)	27,968,567	29,564,545	29,584,344	28,315,278	26,843,983
EU 16a	Cash outflows - Total weighted value					
EU 16b	Cash inflows - Total weighted value					
16	Total net cash outflows (adjusted value)	15,080,159	15,913,056	16,433,802	16,065,976	15,842,639
17	Liquidity coverage ratio (%)	185.23%	186.14%	180.46%	176.43%	169.75%
	Net Stable Funding Ratio					
18	Total available stable funding	107,399,740	110,495,097	114,114,802		
19	Total required stable funding	82,883,030	84,232,169	84,450,283		
20	NSFR ratio (%)	129.58%	131.18%	135.13%		



EU INS1: Insurance participations

	Dec-21	
	Exposure value	Risk exposure amount
Own fund instruments held in insurance or re-insurance undertakings or insurance holding company not deducted from own funds	563,824	1,409,561

Table EU OVC - ICAAP information

The Montepaschi Group assesses capital adequacy through both a regulatory and an economic perspective, in accordance with ECB guidelines (ECB Guide to the Internal Capital Adequacy Assessment Process).

In the regulatory perspective, the Pillar 1 regulatory requirements and the available resources (regulatory capital) are compared with the minimum levels defined by the supervisory regulations and with the additional requirements defined by the ECB in the SREP Decision, both in an expected macroeconomic context (baseline) and adverse (stress) in a three-year perspective.

In the economic perspective, the Total Internal Capital calculated with reference to all quantifiable Pillar I and II risks and the total available resources defined internally, are compared with specific internal capital adequacy thresholds, both in an expected (baseline) and adverse scenario.

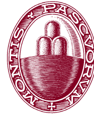
In addition to the inherent risk aspects, the capital adequacy assessment is completed with an assessment of internal processes.

Internal Capital Analysis

Total Internal Capital (or Total Absorbed Internal Capital) is intended as the management amount of minimum capital resources necessary to cover economic losses due to the occurrence of unexpected events generated by simultaneous exposure to different types of risk.

The main types of risk to which the Montepaschi Group is exposed in the course of its normal operations may be summarised as follows:

- Credit risk;
- Market Risk;
- Operational Risk;
- Banking Book Interest Rate Risk;
- Counterparty Risk;
- Real Estate Risk;
- Issuer Risk;
- Concentration Risk;
- Equity Portfolio Risk;
- Business/Strategic Risk;
- Model Risk



- Liquidity Risk;
- Reputational Risk.

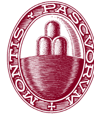
All the above types of risk contribute to the quantification of the Total Internal Capital, with the exception of liquidity risk and reputational risk, which are mitigated through organisational policies and processes.

Risks inherent in investment products/ services for Group customers are also monitored with a view to both protecting customers and preventing potential reputational impacts.

The Risk Management Department regularly quantifies the Internal Capital related to each type of risk and periodically reports to the Risk Management Committee and to the Top Management as part of the flows prepared by the Chief Risk Officer Department.

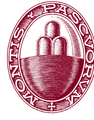
The approach used for the quantification and integration of risks-to-capital, to which the Group is exposed, is called Pillar 1 Plus.

The Total Internal Capital is calculated without considering inter-risk diversification, therefore directly adding up the internal capital contributions for the individual risks (Building Block approach).

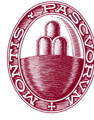


Template IFRS 9/Article 468-FL: Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR

		a	b	c	d
		Dec-21	Set-21	Jun-21	Mar-21
Available capital (amounts)					
1	Common Equity Tier 1 (CET1) capital	5,991,778	5,948,693	6,058,299	5,957,629
2	Common Equity Tier 1 (CET1) capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5,234,741	5,181,250	5,238,609	5,042,575
2a	CET1 capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI (other comprehensive income) in accordance with Article 468 of the CRR had not been applied	6,023,075	5,991,275	6,103,086	6,006,669
3	Tier 1 capital	5,991,778	5,948,693	6,058,299	5,957,629
4	Tier 1 capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	5,234,741	5,181,250	5,238,609	5,042,575
4a	Tier 1 capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	6,023,075	5,991,275	6,103,086	6,006,669
5	Total capital	7,705,129	7,685,725	7,742,337	7,761,153
6	Total capital as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	6,948,091	6,925,571	6,962,242	6,846,099
6a	Total capital as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	7,736,426	7,728,307	7,787,124	7,810,193
Risk-weighted assets (amounts)					
7	Total risk-weighted assets	47,786,902	48,206,191	49,985,782	48,901,422
8	Total risk-weighted assets as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	47,704,380	48,117,428	49,874,762	48,787,794
Capital Ratios					
9	Common Equity Tier 1 (as a percentage of risk exposure amount)	12.54%	12.34%	12.12%	12.18%
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	10.97%	10.77%	10.50%	10.34%
10a	CET1 (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	12.60%	12.42%	12.21%	12.27%
11	Tier 1 (as a percentage of risk exposure amount)	12.54%	12.34%	12.12%	12.18%
12	Tier 1 (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	10.97%	10.77%	10.50%	10.34%
12a	Tier 1 (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	12.60%	12.42%	12.21%	12.27%
13	Total capital (as a percentage of risk exposure amount)	16.12%	15.94%	15.49%	15.87%
14	Total capital (as a percentage of risk exposure amount) as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	14.56%	14.39%	13.96%	14.03%
14a	Total capital (as a percentage of risk exposure amount) as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	16.19%	16.03%	15.57%	15.96%
Leverage ratio					
15	Leverage ratio total exposure measure	126,834,475	129,024,289	131,655,473	129,883,491
16	Leverage ratio	4.72%	4.61%	4.60%	4.59%
17	Leverage ratio as if IFRS 9 or analogous ECLs transitional arrangements had not been applied	4.15%	4.04%	4.00%	3.91%
17a	Leverage ratio as if the temporary treatment of unrealised gains and losses measured at fair value through OCI in accordance with Article 468 of the CRR had not been applied	4.75%	4.64%	4.64%	4.62%



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 157 bp and 156 bp, respectively of CET1 ratio and total capital ratio. Such coefficients would have resulted in 10.97% (instead of 12.54% transitional arrangements) and 14.56% (instead of 16.12%) respectively of CET1 ratio and total capital ratio. IFRS 9 fullyloaded application would have entailed a total CET1 decrease of about 0.8 bn euro linked to major provisions implemented during FTA on IRB credit exposure.



Annex III - Disclosure of risk management policies and objectives

EU OVA: Institution risk management approach

EU OVA: Risk Management approach

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

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

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

The RAS represents an essential element in defining the Group's risk strategy. As part of the RAS, risk objectives/restrictions are identified (that is, the Risk Appetite is cascaded down to Business Units/Legal Entities) in line with missions assigned to the Business Lines and the Legal Entities' Business Model. The process, approved by the Group's strategic supervision body, is expressed through and articulated system of *Key Risk Indicators* (KRI), which reflect the *Risk tolerance* in relation to the Group's *risk profile* within the maximum admissible limits (*risk capacity*) deriving from regulatory requirements or other restrictions imposed by the Supervisory Authorities.

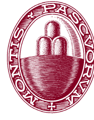
Subsequently, the Risk Appetite is then allocated, through specific mandates, to the CEO/GM, in terms of operating limits (*Risk Limits*) for various business segment and formalised with governance policies and management processes concerning various risks.

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

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

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

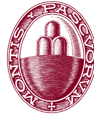
The overall internal capital and liquidity adequacy assessment takes place periodically



as part of the strategic ICAAP (*Internal Capital Adequacy Assessment Process*) and ILAAP (*Internal Liquidity Adequacy Assessment Process*) process consisting mainly of:

- ICAAP/ILAAP *Outcomes*, or quantitative (*inherent risk*) and qualitative (*risk management and controls*) assessments on risk positioning prepared by the Risk Control function for the Board of Directors.
- *Capital/Liquidity Adequacy Statement* (CAS/LAS), i.e. a summary declaration prepared by the Board of Directors where it expresses its vision and awareness regarding the management of the liquidity adequacy.
- ICAAP/ILAAP ongoing, which consists substantially of periodical analyses of liquidity adequacy which are described in reports to the corporate bodies.

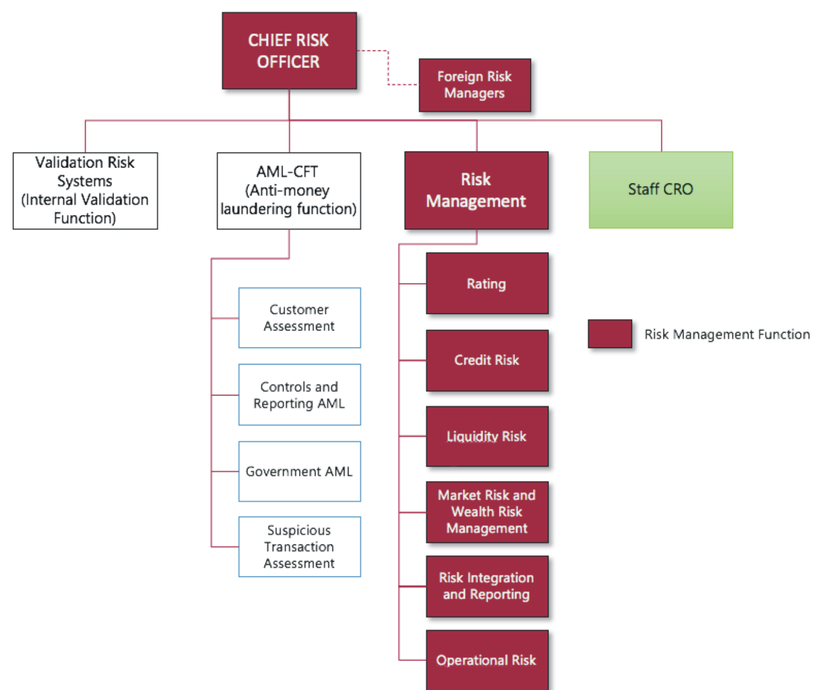
The Annual report on activities carried out concerning *Risk Management*, approved annually (by April 30th) by the Board of Directors, highlights checks carried out, findings and weaknesses that were found, suggesting any necessary corrective actions to be taken.

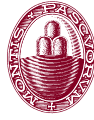


EU OVA: Institution risk management approach

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

The Head of the Chief Risk Officer (CRO) Department, in addition to being responsible for the risk control function, has also been responsible for the AML function. Moreover, the Internal Validation function reports to the CRO, as set forth in the Supervisory regulations and as internally transposed in the Group policy regarding the internal control system. Risk Manager of the Parent Company's Foreign branch of Shangai as well as the Risk Manager of Monte Paschi Banque also report to the CRO.





The Division's autonomy and independence are ensured as it reports directly to the Corporate Body (CdA), with strategic supervisory functions and only functionally to the Management Body (AD/DG). It has direct access to the Body with control functions (Collegio Sindacale) and may communicate continuously with no restriction or intermediation. The CRO is also entitled at his or her discretion to participate in Risk and Sustainability Committee meetings to intervene or propose discussions on specific topics. In particular, the Board of Directors appoints and removes the Chief Risk Officer, upon proposal by the Risk and Sustainability Committee, with the assistance of the Appointments Committee, having consulted the Board of Statutory Auditors.

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

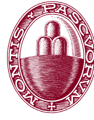
La determinazione dell'assetto retributivo del Chief Risk Officer della Capogruppo è deliberata da parte del CdA, su proposta del Comitato Remunerazione, acquisendo il parere del Comitato Rischi e Sostenibilità. In particolare, all'interno della Direzione Chief Risk Officer, la struttura della Funzione di Controllo dei Rischi è stata, nel mese di giugno 2021, ristrutturata in favore di una semplificazione che ha previsto un accorciamento delle filiere con la previsione di un'unica unità organizzativa Risk Management che ha accorpato le precedenti (Financial, Lending e Operating) e prevedendo 6 unità organizzative di secondo livello (Integrazione Rischi e Reporting, Rischi di Credito, Rating, Rischi Operativi, Rischi di Mercato e Wealth Risk Management, Rischi di Liquidità).

La Funzione *Risk Management*, come funzione di controllo di secondo livello, rientra nell'assetto generale dei controlli di Gruppo, disciplinato internamente dalla *Policy* sul Sistema dei Controlli Interni, che definisce l'insieme delle regole, delle funzioni, delle strutture, delle risorse, dei processi e delle procedure volte ad assicurare la sana e prudente gestione dell'impresa.

For a more thorough account of the Group's Internal Control System, Corporate Governance, as well as Risk Culture, please refer to the Corporate Governance Report available on the Group's website at:

(https://www.gruppomps.it/corporate-governance/relazioni-corporate-governance.html)

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



EU OVA: Risk Reporting Flows: main features

The Board of Directors:

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

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

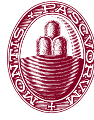
Risk Reporting can be divided in External Risk Reporting and External Risk Reporting, depending on the recipients.

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

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

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

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



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

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

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

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

EU OVA: characteristics and measurement of risks

Please refer to the individual Annexes below for information on the different types of risks covered by the Pillar 3 Disclosures (liquidity, credit, counterparty, market, operational and interest rate risks). The Group has also identified and monitors the following risks.

Real Estate Risk

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

As part of its operations, the Group is exposed to risk in the real estate sector, Internal Capital for Real Estate Risk is represented by regulatory capital.

The Internal Capital is quantified by the Risk Management of the Parent company

Equity Investment Portfolio Risk

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

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

are to be deducted from Own Funds.

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

The Internal Capital is quantified by the Risk Management 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.

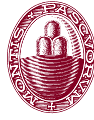
Strategic Risk

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

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

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

The Internal Capital is quantified by the Risk Management Function of the Parent Company.



Risk inherent in investment products/ services

The Group pays particular attention to the governance of risks regarding investment services that 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.

Organizational 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 Market Risk and Wealth Risk Management Department within the Parent Company's Chief Risk Officer Division. This is to ensure centralized governance of the direct and indirect risks which the Group incurs during its operations.

Wealth risk management focuses on the comprehensive set of operational and management processes as well as

measurement and monitoring tools/methods used to ensure overall consistency between customers' risk profiles and the risk of investment products and portfolios offered to -or in any case held by- customers.

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

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

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

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

A special focus is given by the Bank to the monitoring and prevention of potential financial and reputational risks which investment services, particularly within the context of financial crisis, may generate as a consequence of increased market volatility. The fast-moving and not always predictable

market trends may result in rapid changes in product risks and generate potential financial losses, as well as prompting a changing attitude by customers towards their own financial investments.

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

The strategic choice of the Banca MPS is to combine the placement of financial products with advisory 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.

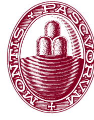
Banca MPS offers two types of advisory services:

- "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 maximize 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.

Risk Reputational

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



negative news on the bank or on the sector banking or an inappropriate management of external communications.

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

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

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

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

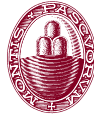
Each business Function with reference to the activities for which it is responsible, given the pervasive and transversal nature of this risk, is involved in the process of protecting the image and safeguarding the corporate reputation, for the purpose of identifying reputational risks and related organizational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

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

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

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

The *framework* includes reputational indicators that "measure" the strength of the relationship with the main *stakeholders*



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

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

ESG Risk (*Environmental, Social and Governance*)

In consideration of the growing importance of ESG risk factors in regulation, in government policies, in the sensitivity of stakeholders and also following specific initiatives promoted by the ECB, in particular on Climate-related and Environmental Risks - C&E Risks (see. Guidelines on climate and environmental risks ", launch of the Climate Stress Test to be conducted at the beginning of 2022), in 2021 the Montepaschi Group launched a multi-year program of activities aimed at identifying areas for improvement in the policies and management methods of such risks.

In particular, during 2021 the risk identification process - in the context of emerging risks - explicitly examined C&E Risks as a further aspect for transversal analysis (transmission channels) to traditional "core" financial risks. The approach implemented led to identifying the areas of Credit Risks and Business / Strategic Risks as a priority.

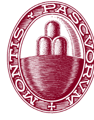
A number of new ESG-specific Key Risk Indicators (KRIs) have been identified within the Group's Risk Appetite Framework, with particular reference to C&E Risks (physical and transition risks).

The new Credit Strategies are being released, also based on ESG criteria, in line with the strategic guidelines of the Group, which will make it possible to start the grounding in the ordinary management and on the commercial network of the sustainability practices outlined.

For more information on sustainability policies, please refer to the Consolidated Non-Financial Statement (https://www.gruppomps.it/en/sustainability/report.html).

EU OVA: 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.

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

Stress tests assess the Group's ability to absorb large potential losses or liquidity outflows in the event of severe but plausible extreme or idiosyncratic market events, so that measures can be identified to reduce the risk profile and preserve the capital and liquidity position.

On the subject of stress tests, in 2021 - following the postponement of 2020 due to the COVID-19 pandemic - the EBA launched EU-wide stress testing, aimed at verifying the impact of adverse scenarios on the soundness of the European banking sector.

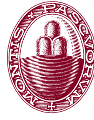
The Montepaschi Group's participation in the EBA EU-wide Stress Test exercise confirmed the weakness of the MPS business model in adverse scenarios, at least until the identified capital strengthening operation is finalised (see BMPS: EBA 2021 Stress Test results - Press release).

EU OVA: Risk Management strategies and policies

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

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

Over time, these models have been further



developed and their scope of application extended to Group entities not originally included in the initial scope of validation. As at 31-12-2021, 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 (identified by a threshold of EUR 1 mln the Group to adopt the "*Slotting Criteria*" AIRB method.

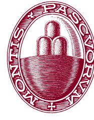
The Group has adopted the standard approach for the remaining credit risk exposures/entities for regulatory purposes.

Operational Risk: regulatory treatment

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

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

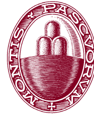
Instead, capital requirements relating to counterparty risk are calculated using the current market value for OTC derivatives and long settlement transactions (LST) as well as the comprehensive method for securities financing transactions (SFT).



EU OVB: Disclosure on governance arrangements

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

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



Annex V - Disclosure of the scope of application

EU LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

	Dec-21						
	a	b	c	d	e	f	g
			Carrying values of items				
Assets	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
10. Cash and cash equivalent	1,741,766	22,486,525	22,486,525				
20. Financial assets designated at fair value through profit or loss	9,670,985	9,670,985	131,444	2,426,023	-	9,216,960	322,582
a) Financial assets held for trading	9,216,960	9,216,960		2,426,023		9,216,960	
of which derivatives	*2,426,023*	*2,426,023*		*2,426,023*		*2,426,023*	
of which Equity instruments	158,427	158,427					
of which Debt securities	*6,632,510*	*6,632,510*					
of which Loans and advances	-	-					
b) Other financial assets mandatorily measured at fair value	*454,025*	*454,025*	*131,444*	-	*85,262*	-	*322,582*
of which Equity instruments	*205,256*	*205,256*					
of which Debt securities	*117,325*	*117,325*			*85,262*		
of which Loans and advances	*131,444*	*131,444*	*131,444*				
30. Financial assets at fair value through other comprehensive income	5,460,669	5,460,669	5,205,673		13,608		
of which Equity instruments	*254,996*	*254,996*					
of which Debt securities	*5,205,673*	*5,205,673*	*5,205,673*		*13,608*		
of which Loans and advances	-	-					
40. Financial assets at amortized cost	113,060,139	92,315,380	92,249,590	5,939,207	2,184,410	-	65,790
of which Loans to banks	*25,004,413*	*4,259,652*	*4,259,652*	*812,843*			
of which Loans to customers	*88,055,726*	*88,055,728*	*87,989,938*	*5,126,364*	*2,184,410*		*65,790*
50. Hedging derivatives	5,567	5,567		5,567			
60. Change in value of macro-hedged financial assets (+/-)	594,455	594,455	594,455				
70. Equity investments	1,095,412	1,154,735	673,828				480,906
90. Property, plant and equipment	2,490,131	2,415,195	2,415,195				
100. Intangible assets	185,229	185,222					185,222
110. Tax assets	1,773,960	1,772,713	1,569,032				203,681
120. Non-current assets and groups of assets held for sale and discontinued operations	72,883	72,883	72,883				
130. Other assets	1,717,365	1,745,569	1,745,569				
Total assets	**137,868,562**	**137,879,898**	**127,144,194**	**8,370,797**	**2,283,280**	**9,216,960**	**1,258,181**
Liabilities							
10. Financial liabilities measured at amortized cost	121,466,203	121,481,462	-	5,767,135	-	-	115,714,328
of which due to banks	*31,279,861*	*31,274,055*		*1,468,477*			*29,805,578*
of which due to customers	*79,478,803*	*79,499,869*		*4,298,657*			*75,201,212*
of which Securities issued	*10,707,538*	*10,707,538*					*10,707,538*
20. Financial liabilities held for trading	4,531,060	4,531,060		1,426,950		4,531,060	
of which derivatives	*1,426,950*	*1,426,950*		*1,426,950*			
30. Financial liabilities designated at fair value through profit or loss	113,989	113,989					113,989
40. Hedging derivatives	1,259,140	1,259,140		1,259,140			
50. Change in value of macro-hedged financial liabilities (+/-)	15,875	15,875					15,875
60. Tax liabilities	7,054	3,670	3,670				
70. Liabilities included in disposal groups classified as held for sale	-	-					-
80/90. Other liabilities and TFR	2,646,512	2,486,765					2,486,765
100. Provisions for risks and charges	1,654,733	1,813,940					1,813,940
120. Valuation reserves	306,771	306,771					306,771
150. Reserves	-3,638,638	-3,638,638					-3,638,638
170. Share capital	9,195,012	9,195,012					9,195,012
180. Treasury shares (-)	-	-					-
190. Minority shareholders' equity (+/-)	1,346	1,346					1,346
200. Profit (Loss) for the period (+/-)	309,507	309,507					309,507
Total liabilities	**137,868,562**	**137,879,898**	**3,670**	**8,453,224**	**-**	**4,531,060**	**126,318,893**

The significant differences between the two aggregates (a) and (b) shown in Table EU LI1, are due to the different representation of the deposits to Central Banks due to the Reserve Requirement.

EU LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements

		Dec-21				
		a	b	c	d	e
				Items subject to		
		Total	Credit risk framework	Securitisation framework	CCR framework	Market risk framework
1	**Assets carrying value amount under the scope of regulatory consolidation (as per template LI1)**	137,798,271	127,144,194	2,283,280	8,370,797	9,216,960
2	**Liabilities carrying value amount under the regulatory scope of consolidation (as per template LI1)**	8,456,894	3,670		8,453,224	4,531,060
3	**Total net amount under the regulatory scope of consolidation**	129,341,377	127,140,524	2,283,280	-82,427	4,685,900
4	**Off-balance-sheet amounts**	33,627,186	33,627,186			
5	*Differences in valuations*	-27,753	-27,753			
6	*Differences due to different netting rules, other than those already included in row 2*	-				
7	*Differences due to consideration of provisions*	2,369,182	2,355,089		14,093	
8	*Differences due to the use of credit risk mitigation techniques (CRMs)*	-5,379,168			-5,379,168	
9	*Differences due to credit conversion factors*	-28,895,311	-28,895,311			
10	*Differences due to Securitisation with risk transfer*	-				
11	*Other differences*	-1,791,614	-10,685,742	-	8,894,129	
12	**Exposure amounts considered for regulatory purposes**	129,243,900	123,513,994	2,283,280	3,446,626	

Table EU LI2 shows the reconciliation between the carrying amounts determined under regulatory consolidation and the amounts considered for regulatory purposes, for each type of risk.

With regard to credit risk, the main differences between the carrying amounts determined under regulatory consolidation and the amounts of exposures determined for regulatory purposes can be attributed to the following phenomena:

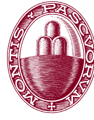
- differences due to the treatment of value adjustments for loans treated using the IRB approach;
- differences due to the use of risk mitigation techniques eligible under the CRR regulation with respect to financial collateral;
- differences due to the application of the credit conversion factor (CCF) on off-balance sheet positions.

As regards counterparty risk, the differences can be attributed to the different approaches to determining EAD under the CRR, including:

- the application of PFE (Potential Future Exposure) to derivative financial instruments;
- the application of regulatory haircuts on SFTs;
- “default funds” to operate in markets managed by central counterparties.

EU LI3: Outline of the differences in the scopes of consolidation (entity by entity)

	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.	Parigi	Banking	100,00	1	100,00	Full	x			
MPS CAPITAL SERVICES - BANCA PER LE IMPRESE S.p.a	Firenze	Banking	100,00	1	100,00	Full	x			
WISE DIALOG BANK S.p.a. - WIDIBA	Milano	Banking	100,00	1	100,00	Full	x			
MONTE PASCHI FIDUCIARIA S.p.a	Siena	Trust company	100,00	1	100,00	Full	x			
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	Parigi	Financial intermediary	100,00	1	100,00	Full	x			
CIRENE FINANCE S.r.l	Conegliano	Special purpose vehicle	60,00	1	60,00	Full	x			
MAGAZZINI GENERALI FIDUCIARI MANTOVA S.p.a	Mantova	Deposit and custody warehouses (for third parties)	100,00	1	100,00	Full	x			
CONSORZIO OPERATIVO GRUPPO MPS S.c.p.a.	Siena	IT and Information services	99,91	1	99,91	Full	x			
MPS COVERED BOND S.r.l	Conegliano	Special purpose vehicle	90,00	1	90,00	Full	x			
MPS COVERED BOND 2 S.r.l	Conegliano	Special purpose vehicle	90,00	1	90,00	Full	x			
G.IMM.ASTOR S.r.l	Lecce	Real estate renting	52,00	1	52,00	Full	x			
IMMOBILIARE VICTOR HUGO S.C.I.	Parigi	Real estate	100,00	1	100,00	Full	x			
AIACE REOCO S.r.l. in liquidazione	Siena	Real estate	100,00	1	100,00	Full	x			
ENEA REOCO S.r.l. in liquidazione	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			



EU LIB - Other qualitative information on the scope of application

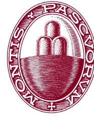
The following table reports all entities included in the scope of consolidation as of 31 December 2021.

The disclosure contained in this document 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:

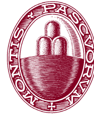
- consolidation of companies non included in the Register of Banking Group using the line-by-line method in the IAS/IFRS financial statement and the equity method for prudential supervision. It should be further noted that there are no non-consolidated companies within the Montepaschi Group.

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



EU PV1: Prudent valuation adjustments (PVA)

		a	b	c	d	e	EU e1	EU e2	f	g	h
				Risk category			Category level AVA - Valuation uncertainty			Total core approach	
	Category level AVA	Equity	Interest Rates	Foreign exchange	Credit	Commodities	Unearned credit spreads AVA	Investment and funding costs AVA		Of which: in the trading book	Of which: in the banking book
1	Market price uncertainty	63	7,521	0	4,085	0	-	6	5,837	2,083	3,755
3	Close-out cost	145	8,223	0	8,123	0	-	27	8,259	2,790	5,469
4	Concentrated positions	428	-	-	4,457	-			4,885	2,193	2,691
5	Early termination	-	16	-	-	-			16	16	-
6	Model risk	404	4,393	95	-	-	3,259	-	8,150	8,150	-
7	Operational risk	-	-	-	-	-			-	-	-
10	Future administrative costs	-	98	373	-	57			529	529	-
12	**Total Additional Valuation Adjustments (AVAs) as at 31/12/2021**								**27,676**	**15,761**	**11,915**



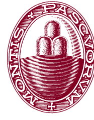
Annex VII - Disclosure of own funds

EU CC1: Composition of regulatory own funds (part 1)

		a	b
		Dec-21	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Common Equity Tier 1: instruments and reserves		
1	Capital instruments and the related share premium accounts	9,195,012	160. Share premium reserve 170. Equity
	of which: Paid up capital instruments	*9,195,012*	
2	Retained earnings	-3,520,273	
3	Accumulated other comprehensive income (and other reserves)	188,405	120. Valuation reserves 150. Reserves
3a	Funds for general banking risk	-	
4	Amount of qualifying items referred to in Article 484 (3) CRR and the related share premium accounts subject to phase out from CET1	-	
5	Minority interests (amount allowed in consolidated CET1)	-	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	309,507	200. Profit / loss for the period
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**6,172,652**	
	Common Equity Tier 1 (CET1) capital: regulatory adjustments		
7	Additional value adjustments (negative amount)	-27,753	Value adjustments for supervisory purposes (Prudent Valuation)
8	Intangible assets (net of related tax liability) (negative amount)	-119,874	100. Intangible assets
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-177,775	110. Tax assets
11	Fair value reserves related to gains or losses on cash flow hedges of financial instruments that are not valued at fair value	-	120. Valuation reserves 150. Reserves
12	Negative amounts resulting from the calculation of expected loss amounts	-	Surplus of expected losses compared to total value adjustments (IRB models)
13	Any increase in equity that results from securitised assets (negative amount)	-	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-14,642	Profit or loss of fair value deriving from the entity's own credit risk related to derivative liabilities
15	Defined-benefit pension fund assets (negative amount)	-	
16	Direct, indirect and synthetic holdings by an institution of own CET1 instruments (negative amount)	-	180. Own shares
17	Direct, indirect and synthetic holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
18	Direct, indirect and synthetic 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 10% threshold and net of eligible short positions) (negative amount)	-	70. Holdings
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-381,340	70. Holdings
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	-16,889	
20b	*of which: qualifying holdings outside the financial sector (negative amount)*	-	
20c	*of which: securitisation positions (negative amount)*	*-16,889*	
20d	*of which: free deliveries (negative amount)*	-	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met) (negative amount)	-	110. Tax assets
22	Amount exceeding the 17,65% threshold (negative amount)	-76,360	
23	*of which: direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities*	*-50,454*	*70. Holdings*
25	*of which: deferred tax assets arising from temporary differences*	*-25,906*	*110. Tax assets*
25a	Losses for the current financial year (negative amount)	-	200. Profit / loss for the period
25b	Foreseeable tax charges relating to CET1 items except where the institution suitably adjusts the amount of CET1 items insofar as such tax charges reduce the amount up to which those items may be used to cover risks or losses (negative amount)	-	
27	Qualifying AT1 deductions that exceed the AT1 items of the institution (negative amount)	-	
27a	Other regulatory adjustments	633,760	
28	**Total regulatory adjustments to Common equity Tier 1 (CET1)**	**-180,874**	
29	**Common Equity Tier 1 (CET1) Capital**	**5,991,778**	

EU CC1: Composition of regulatory own funds (part 2)

		a	b
		Dec-21	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Additional Tier 1 (AT1) capital: instruments		
30	Capital instruments and the related share premium accounts	-	
31	*of which: classified as equity under applicable accounting standards*	-	
32	*of which: classified as liabilities under applicable accounting standards*	-	*10. Financial liabilities valued at amortized cost -c) securities issued*
33	Amount of qualifying items referred to in Article 484 (4) CRR and the related share premium accounts subject to phase out from AT1	-	10. Financial liabilities valued at amortized cost -c) securities issued
EU 33a	Amount of qualifying items referred to in Article 494a(1) CRR subject to phase out from AT1	-	
EU 33b	Amount of qualifying items referred to in Article 494b(1) CRR 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, indirect and synthetic holdings by an institution of own AT1 instruments (negative amount)	-	
38	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	Additional capital instruments of class 1 of financial sector entities held by the entity, directly, indirectly or synthetically, when the entity does not have a significant investment in such entities
40	Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-	
42	Qualifying T2 deductions that exceed the T2 items of the institution (negative amount)	-	
42a	Other regulatory adjustments to AT1 capital	-	
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**-**	
44	**Additional Tier 1 (AT1) capital**	**-**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**5,991,778**	



EU CC1: Composition of regulatory own funds (part 3)

		a	b
		Dec-21	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Tier 2 (T2) capital: instruments		
46	Capital instruments and the related share premium accounts	1,750,000	10. Financial liabilities valued at amortized cost -c) securities issued
47	Amount of qualifying items referred to in Article 484(5) CRR and the related share premium accounts subject to phase out from T2 as described in Article 486(4) CRR	-	
EU-47a	Amount of qualifying items referred to in Article 494a(2) CRR subject to phase out from T2	-	
EU-47b	Amount of qualifying items referred to in Article 494b(2) CRR 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	55,121	Surplus of provisions compared to total value adjustments (IRB models)
51	**Tier 2 (T2) capital before regulatory adjustments**	**1,805,121**	
	Tier 2 (T2) capital: regulatory adjustments		
52	Direct, indirect and synthetic holdings by an institution of own T2 instruments and subordinated loans (negative amount)	-	10. Financial liabilities valued at amortized cost -c) securities issued
53	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	-	
54	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	Tier 2 capital instruments and subordinated loans of financial sector entities held directly or indirectly, when the institution has a significant investment in such entities
55	Direct, indirect and synthetic holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)	-65,790	Tier 2 capital instruments and subordinated loans of financial sector entities held directly or indirectly, when the institution has a significant investment in such entities
EU 56a	Qualifying eligible liabilities deductions that exceed the eligible liabilities items of the institution (negative amount)	-	
56b	Other regulatory adjustments to T2 capital	-25,980	
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**-91,770**	
58	**Tier 2 (T2) capital**	**1,713,351**	
59	**Total Capital (TC= T1+T2)**	**7,705,129**	
60	**Total Risk exposure amount**	**47,786,902**	

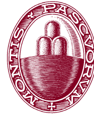
EU CC1: Composition of regulatory own funds (part 4)

		a	b
		Dec-21	Source based on reference numbers/letters of the balance sheet under the regulatory scope of consolidation
	Capital ratios and buffer		
61	Common Equity Tier 1 capital	12.54%	
62	Tier 1 capital	12.54%	
63	Total capital	16.12%	
64	Institution CET1 overall capital requirements	8.74%	
65	*of which: capital conservation buffer requirement*	*2.500%*	
66	*of which: countercyclical capital buffer requirement*	*0.003%*	
67	*of which: systemic risk buffer requirement*	-	
EU-67a	*of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer requirement*	*0.19%*	
EU-67b	*of which: additional own funds requirements to address the risks other than the risk of excessive leverage*	*6.047%*	
68	**Common Equity Tier 1 capital (as a percentage of risk exposure amount) available after meeting the minimum capital requirements**	**4.48%**	
	Amounts below the thresholds for deduction (before risk weighting)		
72	Direct and indirect holdings of own funds and eligible liabilities 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)	179,514	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 17.65% thresholds and net of eligible short positions)	530,506	
75	Deferred tax assets arising from temporary differences (amount below 17,65% threshold, net of related tax liability where the conditions in Article 38 (3) CRR are met)	242,484	
	Applicable caps on the inclusion of provisions in Tier 2		
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised 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 internal ratings-based approach (prior to the application of the cap)	55,121	
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	115,686	
	Capital instruments subject to phase-out arrangements (only applicable between 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 over cap after redemptions and maturities)	-	
82	Current cap on AT1 instruments subject to phase out arrangements	-	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	
84	Current cap on T2 instruments subject to phase out arrangements	-	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	

The calculation of own funds is made in accordance with CRR and no restrictions are applied.

EU CC2: Reconciliation of regulatory own funds to balance sheet in the audited financial statements

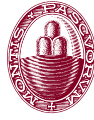
	Items	Dec-21 Statutory financial statements	Regulatory financial statements	Amount relevant for own funds purposes	Source
	ASSET				
70	Holdings	1,095,412	1,154,735	-366,440	18,19,23
	of which implicit goodwill	*49,112*	*49,112*	*-49,112*	
100	Intangible assets	185,229	185,229	-185,229	8
	of which goodwill	*7,900*	*7,900*	*-7,900*	*8*
	of which other intangible	*177,329*	*177,329*	*-177,329*	*8*
110	Tax assets	1,773,960	1,772,713	-203,681	10, 21, 25
	of which based on future profitability but not deriving from temporary differences	*577,483*	*577,483*	*-177,775*	*10*
	LIABILITY				
10	Financial liabilities valued at amortized cost -c) securities in issue	10,707,538	10,707,538	1,750,000	32,33,46,52
30	Financial liabilities valued at FV	113,989	113,989	-	
120	Valuation reserves	306,771	306,771	300,293	3,11
	of which FVOCI	*181,060*	*181,060*	*300,293*	*3*
	of which CFH	-	-	-	*11*
	of which special revaluation laws	-	-	-	*3*
	of which others	*125,711*	*125,711*	-	*3*
150	Reserves	-3,638,638	-3,638,638	-3,632,160	3
160	Share premium reserve	-	-	-	1
170	Equity	9,195,012	9,195,012	9,195,012	1
180	Own shares	-	-	-	16
200	Profit / loss for the period	309,507	309,507	309,507	5a,25a
Profit or loss of fair value deriving from the entity's own credit risk related to derivative liabilities		-	-	-14,642	14
Value adjustments for supervisory purposes (Prudent Valuation)		-	-	-27,753	7
Surplus of expected losses compared to total value adjustments (IRB models)		-	-	-	12
Surplus of provisions compared to total value adjustments (IRB models)				55,121	50
Additional capital instruments of class 1 of financial sector entities held by the entity, directly, indirectly or synthetically, when the entity does not have a significant investment in such entities		-	-	-	39
Tier 2 capital instruments and subordinated loans of financial sector entities held directly or indirectly, when the institution has a significant investment in such entities		-	-	-65,790	54,55
Indirect investments		-	-	-	
Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative: of which: securitisation positions (negative amount)		-	-	-16,889	20c
Other regulatory adjusments		-	-	607,780	27a, 42a, 56b
Total Own Funds		**-**	**-**	**7,705,129**	**59**



EU CCA: Main features of regulatory own funds instruments and eligible liabilities instruments (part 1)

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

* *"N/A" if the question is not applicable.*



EU CCA: Main features of regulatory own funds instruments and eligible liabilities instruments (part 2)

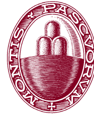
1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2031926731**
3	Governing law(s) of the instrument	English law except for subordination and "Statutory Loss Absorption Powers" conditions which are governed by Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	300
9	Nominal amount of instrument (currency in million)	300
9a	Issue price	100,00
9b	Redemption price	100,00
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	23/07/19
12	Perpetual or dated	On maturity
13	Original maturity date	23/07/29
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a.
18	Coupon rate and any related index	0.105
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

* *"N/A" if the question is not applicable.*

EU CCA: Main features of regulatory own funds instruments and eligible liabilities instruments (part 3)

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2106849727**
3	Governing law(s) of the instrument	English law except for subordination and "Statutory Loss Absorption Powers" conditions which are governed by Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	400
9	Nominal amount of instrument (currency in million)	400
9a	Issue price	100,00
9b	Redemption price	100,00
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	22/01/20
12	Perpetual or dated	On maturity
13	Original maturity date	22/01/30
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Issuer's optional call on 22/01/2025 (the "Issuer Call Date") at par, plus accrued interests. Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years
18	Coupon rate and any related index	8.000% till 22/01/2025, thereafter 5y eur mid swap rate +8.149%
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

* *"N/A" if the question is not applicable.*



EU CCA: Main features of regulatory own funds instruments and eligible liabilities instruments (part 4)

1	Issuer	Banca Monte dei Paschi di Siena S.p.A.
2	Unique identifier (e.g., CUSIP, ISIN or Bloomberg identifier for private placement)	**XS2228919739**
3	Governing law(s) of the instrument	Italian law
	Regulatory treatment	
4	Current treatment taking into account, where applicable, transitional CRR rules	Tier 2 capital
5	Post-transitional CRR rules	Tier 2 capital
6	Eligible at solo/(sub-)consolidated/ solo&(sub-)consolidated	Individual entity and consolidated
7	Instrument type	Tier 2 instrument pursuant to Art. 63 CRR
8	Amount recognised in regulatory capital or eligible liabilities (currency in million)	300
9	Nominal amount of instrument (currency in million)	300
9a	Issue price	100,00
9b	Redemption price	100,00
10	Accounting classification	Liability - amortised cost
11	Original date of issuance	10/09/20
12	Perpetual or dated	On maturity
13	Original maturity date	10/09/30
14	Issuer call subject to prior supervisory approval	Yes
15	Optional call date, contingent call dates and redemption amount	Issuer's optional call on 10/09/2025 (the "Issuer Call Date") at par, plus accrued interests. Upon occurrence of a "Capital Event" or for tax reasons at par, plus accrued interests.
16	Subsequent call dates, if applicable	N/A
	Coupons / dividends	
17	Fixed or floating dividend/coupon	Fixed rate p.a. with reset after 5 years
18	Coupon rate and any related index	8.500% till 10/09/2025, thereafter 5y eur mid swap rate +8.917%
19	Existence of a dividend stopper	No
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Mandatory
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Mandatory
21	Existence of step up or other incentive to redeem	No
22	Cumulative or Noncumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	N/A
25	If convertible, fully or partially	N/A
26	If convertible, conversion rate	N/A
27	If convertible, mandatory or optional conversion	N/A
28	If convertible, specify instrument type convertible into	N/A
29	If convertible, specify issuer of instrument it converts into	N/A
30	Write-down features	No
31	If write-down, write-down trigger(s)	N/A
32	If write-down, full or partial	N/A
33	If write-down, permanent or temporary	N/A
34	If temporary write-down, description of write-up mechanism	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Senior
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	N/A

* *"N/A" if the question is not applicable.*

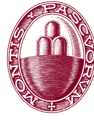
Annex IX - Disclosure of countercyclical capital buffers

EU CCYB1: Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer

	a	b	c	d	e		f	g	h	i	j	k	l	m
	Exposures in the banking book		Exposures in the trading book		Exposures in securitisation		Exposure value under AIRB approach	Own funds requirement				Risk-weighted exposure amounts	Weighting factors of own fund requirement	Countercyclical coefficient
Breakdown by country	Exposure value under SA approach	Exposure value under AIRB approach	Sum of long and short positions	Exposure value under internal models		Total exposure value		of which: generic credit exposures	of which: credit exposures of the trading book	of which: securitisation positions in the banking book	Total			
Italy	11,057,786	71,165,912	1,515,819	-	2,283,280	-	86,022,797	2,206,739	26,399	59,786	2,292,923	28,661,542	94.2484%	0.000%
Luxembourg	190,710	14,951	101,124	-	-	-	306,785	7,537	7,675	-	15,212	190,151	0.6253%	0.500%
Norway	8,227	395	277	-	-	-	8,898	291	22	-	313	3,914	0.0129%	1.000%
Czech Republic	4,053	106	-	-	-	-	4,158	276	-	-	276	3,446	0.0113%	0.500%
Hong Kong	716	496	25	-	-	-	1,236	35	2	-	37	467	0.0015%	1.000%
Bulgaria	1,053	99	-	-	-	-	1,153	11	-	-	11	135	0.0004%	0.500%
Slovakia	427	187	-	-	-	-	613	32	-	-	32	406	0.0013%	1.000%
Other	2,500,035	95,196	8,748,320	-	-	-	11,343,551	102,487	21,560	-	124,046	1,550,581	5.0988%	
Total	**13,763,006**	**71,277,341**	**10,365,566**	**-**	**2,283,280**	**-**	**97,689,193**	**2,317,408**	**55,658**	**59,786**	**2,432,851**	**30,410,641**	**100.0000%**	

EU CCYB2: Amount of institution-specific countercyclical capital buffer

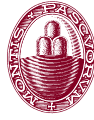
		Dec-2021
10	Total risk exposure amount (RWA)	47,786,902
20	Specific countercyclical coefficient of the institution	0.0030%
30	Specific countercyclical capital buffer requirement of the institution	1,433.61



Annex XI - Disclosure of the leverage ratio

EU LR1 - LRSum: Summary reconciliation of accounting assets and leverage ratio exposures

		Dec-21
		a
		Applicable amount
1	Total assets as per published financial statements	137,868,562
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	11,336
3	(Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference)	-
4	(Adjustment for temporary exemption of exposures to central bank (if applicable))	-18,070,275
5	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio total exposure measure in accordance with point (i) of Article 429a(1) CRR)	-
6	Adjustment for regular-way purchases and sales of financial assets subject to trade date accounting	-
7	Adjustment for eligible cash pooling transactions	-
8	Adjustments for derivative financial instruments	638,526
9	Adjustment for securities financing transactions (SFTs)	1,591,105
10	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	7,242,257
11	(Adjustment for prudent valuation adjustments and specific and general provisions which have reduced Tier 1 capital)	-
EU-11a	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	-
EU-11b	(Adjustment for exposures excluded from the leverage ratio total exposure measure in accordance with point (j) of Article 429a(1) CRR)	-
12	Other adjustments	-2,447,035
13	**LEVERAGE RATIO TOTAL EXPOSURE MEASURE**	**126,834,475**

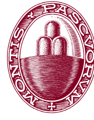


EU LR2 - LRCom: Leverage ratio common disclosure

		CRR leverage ratio exposures a Dec-21
	On-balance sheet exposures (excluding derivatives and SFTs)	
1	On-balance sheet items (excluding derivatives, SFTs, but including collateral)	110,987,681
2	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-
3	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-479,795
4	(Adjustment for securities received under securities financing transactions that are recognised as an asset)	-
5	(General credit risk adjustments to on-balance sheet items)	-
6	(Asset amounts deducted in determining Tier 1 capital)	-142,355
7	**TOTAL ON-BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES AND SFTS)**	**110,365,531**
	Derivative exposures	
8	Replacement cost associated with SA-CCR derivatives transactions (ie net of eligible cash variation margin)	1,580,270
EU-8a	Derogation for derivatives: replacement costs contribution under the simplified standardised approach	-
9	Add-on amounts for potential future exposure associated with SA-CCR derivatives transactions	1,077,108
EU-9a	Derogation for derivatives: Potential future exposure contribution under the simplified standardised approach	-
EU-9b	Exposure determined under Original Exposure Method	-
10	(Exempted CCP leg of client-cleared trade exposures) (SA-CCR)	-
EU-10a	(Exempted CCP leg of client-cleared trade exposures) (simplified standardised approach)	-
EU-10b	(Exempted CCP leg of client-cleared trade exposures) (original exposure method)	-
11	Adjusted effective notional amount of written credit derivatives	3,222,092
12	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-66,739
13	**TOTAL DERIVATIVES EXPOSURES**	**5,812,731**
	Securities financing transaction (SFT) exposures	
14	Gross SFT assets (with no recognition of netting), after adjustment for sales accounting transactions	1,846,432
15	(Netted amounts of cash payables and cash receivables of gross SFT assets)	1,077,101
16	Counterparty credit risk exposure for SFT assets	514,004
EU-16a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Articles 429e(5) and 222 CRR	-
17	Agent transaction exposures	-
EU-17a	(Exempted CCP leg of client-cleared SFT exposure)	-
18	**TOTAL SECURITIES FINANCING TRANSACTION EXPOSURES**	**3,437,537**
	Other off-balance sheet exposures	
19	Off-balance sheet exposures at gross notional amount	33,627,186
20	(Adjustments for conversion to credit equivalent amounts)	-26,384,929
21	(General provisions associated with off-balance sheet exposures deducted in determining Tier 1 capital)	-
22	**OFF-BALANCE SHEET EXPOSURES**	**7,242,257**
	Excluded exposures	
EU-22a	(Exposures excluded from the leverage ratio total exposure measure in accordance with point (c) of Article 429a(1) CRR)	-
EU-22b	(Exposures exempted in accordance with point (j) of Article 429a (1) CRR (on and off balance sheet))	-
EU-22c	(-) Excluded exposures of public development banks - Public sector investments	-
EU-22d	(Excluded promotional loans of public development banks: - Promotional loans granted by a public development credit institution - Promotional loans granted by an entity directly set up by the central government, regional governments or local authorities of a Member State - Promotional loans granted by an entity set up by the central government, regional governments or local authorities of a Member State through an intermediate credit institution)	-
EU-22e	(Excluded passing-through promotional loan exposures by non-public development banks (or units): - Promotional loans granted by a public development credit institution - Promotional loans granted by an entity directly set up by the central government, regional governments or local authorities of a Member State - Promotional loans granted by an entity set up by the central government, regional governments or local authorities of a Member State through an intermediate credit institution)	-
EU-22f	(Excluded guaranteed parts of exposures arising from export credits)	-23,581
EU-22g	(Excluded excess collateral deposited at triparty agents)	-
EU-22h	(Excluded CSD related services of CSD/institutions in accordance with point (o) of Article 429a(1) CRR)	-
EU-22i	(Excluded CSD related services of designated institutions in accordance with point (p) of Article 429a(1) CRR)	-
EU-22j	(Reduction of the exposure value of pre-financing or intermediate loans)	-
EU-22k	**(TOTAL EXEMPTED EXPOSURES)**	**-23,581**

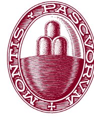
EU LR2 - LRCom: Leverage ratio common disclosure

		CRR leverage ratio exposures a Dec-21
	Capital and total exposure measure	
23	**TIER 1 CAPITAL**	**5,991,778**
24	**LEVERAGE RATIO TOTAL EXPOSURE MEASURE**	**126,834,475**
	Leverage ratio	
25	Leverage ratio	4.7241%
EU-25	Leverage ratio (without the adjustment due to excluded exposures of public development banks - Public sector investments) (%)	4.7241%
25a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves)	4.1350%
26	Regulatory minimum leverage ratio requirement (%)	3.0972%
EU-26a	Additional own funds requirements to address the risk of excessive leverage (%)	0.0000%
EU-26b	*of which: to be made up of CET1 capital*	*0.0000%*
27	Required leverage buffer (%)	0.0000%
EU-27a	Overall leverage ratio requirement (%)	3.0972%
	Choice on transitional arrangements and relevant exposures	
EU-27b	Choice on transitional arrangements for the definition of the capital measure	Transitional
	Disclosure of mean values	
28	Mean value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivable	5,689,633
29	Quarter-end value of gross SFT assets, after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables	2,923,533
30	Total exposures (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	129,600,574
30a	Total exposures (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	147,670,849
31	Leverage ratio (including the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	4.6233%
31a	Leverage ratio (excluding the impact of any applicable temporary exemption of central bank reserves) incorporating mean values from row 28 of gross SFT assets (after adjustment for sale accounting transactions and netted of amounts of associated cash payables and cash receivables)	4.0575%



EU LR3 - LRSpl: Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)

		Dec-21 a CRR leverage ratio exposures
EU-1	**TOTAL ON-BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES, SFTS, AND EXEMPTED EXPOSURES), OF WHICH:**	**110,483,516**
EU-2	Trading book exposures	6,790,135
EU-3	Banking book exposures, of which:	103,693,382
EU-4	*Covered bonds*	*663,955*
EU-5	*Exposures treated as sovereigns*	*17,290,717*
EU-6	*Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns*	*1,526,203*
EU-7	*Institutions*	*3,704,831*
EU-8	*Secured by mortgages of immovable properties*	*36,650,740*
EU-9	*Retail exposures*	*9,806,908*
EU-10	*Corporate*	*21,103,419*
EU-11	*Exposures in default*	*2,107,620*
EU-12	*Other exposures (eg equity, securitisations, and other non-credit obligation assets)*	*10,838,988*

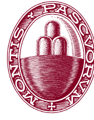


EU LRA: Free format text boxes for disclosure on qualitative items

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 2021.

Over the course of 2021, the leverage ratio remained more or less stable, ending the year with a slight increase. The half-year 12 bp increase from 4.60% was due to a decrease in total exposure of €4,821m, only partially offset by a lower CET1 of €67m.

The factors contributing to the decrease in the denominator are essentially a decline in SFTs and derivative transactions (-€3,200m equally divided between the two areas), a reduction in the net position in commitments on securities of €400m, and the remaining part of the decrease in other assets.



Annex XIII - Disclosure of liquidity requirements

EU LIQA: Liquidity risk management

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.

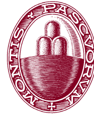
The reference Liquidity Risk model for the Montepaschi Group is "centralised" and calls for the management of short-term liquidity reserves and medium/long-term financial balance at Parent Company level, guaranteeing solvency on a consolidated and individual basis for the Subsidiaries.

The management of operational and structural liquidity is governed by the Parent Company's Liquidity Management Function, which is responsible for defining and implementing funding strategies in the short and medium-long term.

With regard to operational liquidity management, the Liquidity Management Function manages the Group's "liquidity reserves" in order to ensure the Bank's ability to cope with expected and unforeseen outflows, making use of the various tools of the interbank market (unsecured deposits, collateralised deposits, repos), as well as transactions with the Central Bank.

With regard to the management of structural liquidity, the Liquidity Management Function pursues the objectives detailed in the annual Funding Plan, which operationally sets out the medium/long-term strategies defined in the "Liquidity and Funding Strategy". The Group's "Liquidity and Funding Strategy" establishes the guidelines for the MPS Group's funding activities in terms of risk appetite, with a three-year time horizon, in compliance with the multi-year risk tolerance thresholds on operational and structural liquidity indicators – both internal and regulatory – defined in the Group's Risk Appetite Statement (RAS).

The management of the Group's **Operating Liquidity** is aimed at ensuring the Group's ability to meet its cash payment commitments in the short term. The essential condition for day-to-day banking business continuity is the maintenance of a sustainable imbalance between liquidity inflows and outflows in the short term. From an operational point of view, the benchmark metric in this respect is



the difference between net cumulative cash flows and Counterbalancing Capacity, i.e. the liquidity reserve that enables the Bank to cope with short-term stress conditions in addition to the regulatory measure of the Liquidity Coverage Ratio (LCR) Delegated Regulation. 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 bank's treasury day and its ability to meet its intraday payment commitments.

The management of the Group's **Structural Liquidity** aims instead at ensuring the structural financial balance by maturity buckets over a time horizon of more than one year, at both Group and individual Company level. Maintaining an adequate dynamic ratio between medium/long-term liabilities and assets is aimed at avoiding pressure on current and prospective short-term funding sources. The benchmark metrics include gap ratios that measure both the ratio between total funding and loans with maturities of more than 1 year and more than 5 years, and the ratio between funding and commercial loans, as well as the regulatory measure of the Net Stable Funding Ratio (NSFR) according to the CRR2 definition, in force from 30 June 2021. As of 31 December 2021, the NSFR is above the regulatory limit of 100%.

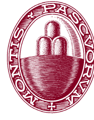
The Group also defined and formalised an Asset Encumbrance management and monitoring framework with the aim of analysing:

- 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 ability to transform banking assets into eligible assets (or equivalently, to encumber non-eligible assets in bilateral transactions);
- a framework for monitoring Concentration Risk, with the aim of analysing:
- the concentration of funding sources, both by counterparty and by type of channel;
- the concentration of assets that make up the Group's liquidity reserves.

In addition, to complete the Funding Plan, the Liquidity Management Function prepares the Contingency Funding Plan, which represents the operational tool for liquidity risk management aimed at defining intervention strategies in the event of extreme liquidity tension, providing procedures and actions that can be promptly activated to obtain sources of funding in the event of an emergency. 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,

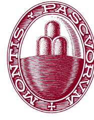
duration and intensity of the crisis and the reference context at the time the crisis occurs.

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



EU LIQ1: Quantitative information of LCR

	Currency and units (XXX million)	Total unweighted value (average)				Total weighted value (average)			
EU 1a	Quarter ending on (DD Month YYY)	**Dec-21**	**Set-21**	**Jun-21**	**Mar-21**	**Dec-21**	**Set-21**	**Jun-21**	**Mar-21**
EU 1b	Number of data points used in the calculation of averages	12	12	12	12	12	12	12	12
1	**Total high-quality liquid assets (HQLA)**					**27,969**	**29,565**	**29,584**	**28,315**
2	Retail deposits and deposits from small business customers, of which:	53,251	52,935	52,093	51,063	3,433	3,408	3,346	3,276
3	*Stable deposits*	*42,076*	*41,890*	*41,347*	*40,634*	*2,104*	*2,094*	*2,067*	*2,032*
4	*Less stable deposits*	*11,175*	*11,046*	*10,746*	*10,429*	*1,329*	*1,313*	*1,279*	*1,244*
5	**Unsecured wholesale funding**	**21,995**	**23,440**	**24,159**	**23,885**	**10,136**	**10,902**	**11,379**	**10,911**
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	-	-	-	*1,710*	-	-	-	*390*
7	Non-operational deposits (all counterparties)	21,970	23,410	24,132	22,148	10,111	10,872	11,351	10,493
8	Unsecured debt	25	30	28	27	25	30	28	27
9	Secured wholesale funding					295	331	248	176
10	Additional requirements	3,690	3,720	3,829	3,758	1,242	1,263	1,337	1,326
11	Outflows related to derivative exposures and other collateral requirements	710	793	861	859	710	793	861	859
12	Outflows related to loss of funding on debt products	197	136	139	136	197	136	139	136
13	Credit and liquidity facilities	2,783	2,791	2,829	2,762	336	333	337	331
14	Other contractual funding	1,629	1,896	2,142	2,501	8	108	336	742
15	Other contingent funding obligations	26,445	25,428	24,179	23,496	1,703	1,698	1,677	1,685
16	TOTAL CASH OUTFLOWS					16,816	17,709	18,324	18,115
	CASH – INFLOWS								
17	Secured lending (e.g. reverse repos)	5,664	6,714	6,715	6,305	106	103	93	76
18	Inflows from fully performing exposures	1,733	1,795	1,950	2,165	963	995	1,071	1,180
19	Other cash inflows	3,050	3,176	3,374	3,681	667	697	726	793
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	10,447	11,685	12,040	12,151	1,736	1,796	1,890	2,049
EU-20a	*Fully exempt inflows*	-	-	-	-	-	-	-	-
EU-20b	*Inflows subject to 90% cap*	-	-	-	-	-	-	-	-
EU-20c	*Inflows subject to 75% cap*	*10,447*	*11,641*	*11,997*	*12,108*	*1,736*	*1,796*	*1,890*	*2,049*
EU-21	LIQUIDITY BUFFER					27,969	29,565	29,584	28,315
22	TOTAL NET CASH OUTFLOWS					15,080	15,913	16,434	16,066
23	LIQUIDITY COVERAGE RATIO (%)					185.23%	186.14%	180.46%	176.43%



EU LIQB on qualitative information on LCR, which complements template EU LIQ1

The *Liquidity Coverage Ratio* (LCR) promotes the short-term resilience of a bank's liquidity risk profile. In the fourth quarter of 2021, Group liquidity was characterized by the lack of signs of strain in the short term, with the LCR (calculated as laid down in the Delegated Regulation (EU) 2015/61) stable, exceeding 170%, well above the regulatory limit of 100%, with an adequate safety buffer.

The indicator was down compared to the previous quarter (-8.5%, from 181.2% in September 2021 to 172.7% in December 2021) having been impacted by the maturity of a secured issue placed on the financial markets.

It should also be noted that there were no methodological changes in the presentation of the indicator in Q4 2021.

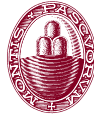
On a monthly basis, the Group monitors the risk of concentration of sources of financial and commercial funding, with a particular focus on the details of the main non-retail counterparties. At the end of December 2021, in accordance with what is monitored through the Additional Liquidity Monitoring Metrics (ALMM) regulatory reporting, funding through unsecured channels amounts to roughly 66% of the total, of which 8% relating to financial non-retail counterparties and 15% relating to non-financial non-retail counterparties.

In December 2021, the Liquidity buffer shows a prevalence of available liquidity deriving from the reserve held with the ECB (79% of the total Liquidity Buffer) and a significant component of Italian and European (17%) and other remaining items (4%), listed on regulated markets and easily liquidated in the short term.

It should be noted that outflows relating to derivative positions and potential requests for collateral are not significant, in view of their impact on outflows is for both less than 4%.

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

Lastly, it is specified that all elements considered relevant to the Group's liquidity profile are considered in determining the LCR.

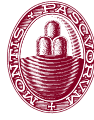


EU LIQ2: net Stable Funding Ratio - NSFR as at 31.12.2021

		Dec-21				
		a	b	c	d	e
			Unweighted value by residual maturity			
	(in currency amount)	No maturity	< 6 months	6 months to < 1yr	≥ 1yr	Weighted value
	Available stable funding (ASF) Items					
1	Capital items and instruments	6,172,652	-	-	1,805,121	7,977,773
2	*Own funds*	*6,172,652*	-	-	*1,805,121*	*7,977,773*
3	*Other capital instruments*		-	-	-	-
4	Retail deposits		53,074,854	2,916	31,018	49,919,685
5	*Stable deposits*		*42,371,820*	*1,668*	*2,984*	*40,257,798*
6	*Less stable deposits*		*10,703,034*	*1,248*	*28,033*	*9,661,887*
7	Wholesale funding:		26,175,425	5,288,038	34,938,926	45,217,616
8	*Operational deposits*		-	-	-	-
9	*Other wholesale funding*		*26,175,425*	*5,288,038*	*34,938,926*	*45,217,616*
10	Interdependent liabilities		-	-	-	-
11	Other liabilities:	123,248	3,115,323	-	4,284,665	4,284,665
12	*NSFR derivative liabilities*	*123,248*				
13	*All other liabilities and capital instruments not included in the above categories*		*3,115,323*	-	*4,284,665*	*4,284,665*
14	**Finanziamento stabile disponibile (ASF) totale**					**107,399,740**
	Required stable funding (RSF) Items					
15	Total high-quality liquid assets (HQLA)					7,989,030
EU-15a	Assets encumbered for more than 12m in cover pool		353,847	448,113	16,953,311	15,091,981
16	Deposits held at other financial institutions for operational purposes		-	-	-	-
17	Performing loans and securities:		20,443,881	4,371,565	42,337,577	47,212,352
18	*Performing securities financing transactions with financial customerscollateralised by Level 1 HQLA subject to 0% haircut*		*5,509,684*	*4,175*	*207,296*	*1,361,625*
19	*Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions*		*2,317,722*	*79,236*	*322,936*	*614,316*
20	*Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:*		*10,558,226*	*3,176,628*	*23,601,063*	*40,707,867*
21	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*361,451*	*153,840*	*1,986,379*	*6,809,266*
22	*Performing residential mortgages, of which:*		*480,155*	*575,896*	*13,851,742*	-
23	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*359,334*	*426,724*	*6,566,243*	-
24	*Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products*		*1,578,094*	*535,630*	*4,354,541*	*4,528,544*
25	Interdependent assets		-	-	-	-
26	Other assets:	-	2,914,521	108,148	10,696,693	11,599,875
27	*Physical traded commodities*				-	-
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*		-	-	*1,157,986*	*984,288*
29	*NSFR derivative assets*		*287,612*			*287,612*
30	*NSFR derivative liabilities before deduction of variation margin posted*		*2,015,058*			*100,753*
31	*All other assets not included in the above categories*		*611,850*	*108,148*	*9,538,707*	*10,227,222*
32	Off-balance sheet items		4,126,797	2,290,603	5,721,821	989,792
33	**Total RSF**					**82,883,030**
34	**Net Stable Funding Ratio (%)**					**129.5799%**

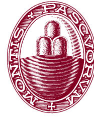
EU LIQ2: net Stable Funding Ratio - NSFR as at 30.09.2021

		Dec-21				
		a	b	c	d	e
		Unweighted value by residual maturity				
	(in currency amount)	No maturity	< 6 months	6 months to < 1yr	≥ 1yr	Weighted value
	Available stable funding (ASF) Items					
1	Capital items and instruments	6,068,701	-	-	1,810,145	7,878,847
2	*Own funds*	*6,068,701*	-	-	*1,810,145*	*7,878,847*
3	*Other capital instruments*		-	-	-	-
4	Retail deposits		52,944,509	2,790	31,964	49,798,318
5	*Stable deposits*		*42,274,175*	*1,514*	*3,316*	*40,165,220*
6	*Less stable deposits*		*10,670,334*	*1,276*	*28,649*	*9,633,098*
7	Wholesale funding:		29,362,962	1,573,380	39,005,090	47,307,581
8	*Operational deposits*		-	-	-	-
9	*Other wholesale funding*		*29,362,962*	*1,573,380*	*39,005,090*	*47,307,581*
10	Interdependent liabilities		-	-	-	-
11	Other liabilities:	168,196	3,337,417	-	5,510,352	5,510,352
12	*NSFR derivative liabilities*	*168,196*				
13	*All other liabilities and capital instruments not included in the above categories*		*3,337,417*	-	*5,510,352*	*5,510,352*
14	**Finanziamento stabile disponibile (ASF) totale**					**110,495,097**
	Required stable funding (RSF) Items					
15	Total high-quality liquid assets (HQLA)					10,072,975
EU-15a	Assets encumbered for more than 12m in cover pool		363,131	428,400	15,659,931	13,983,742
16	Deposits held at other financial institutions for operational purposes		-	-	-	-
17	Performing loans and securities:		22,643,311	3,707,652	43,815,927	47,253,472
18	*Performing securities financing transactions with financial customerscollateralised by Level 1 HQLA subject to 0% haircut*		*6,356,959*	*27,297*	*12,061*	*2,164,594*
19	*Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions*		*3,249,081*	*16,455*	*276,662*	*614,104*
20	*Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:*		*11,247,091*	*2,566,164*	*23,875,346*	*39,969,933*
21	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*899,827*	*959,631*	*11,968,441*	*21,661,289*
22	*Performing residential mortgages, of which:*		*560,563*	*634,898*	*15,251,098*	-
23	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*548,794*	*620,853*	*14,622,102*	-
24	*Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products*		*1,229,618*	*462,839*	*4,400,760*	*4,504,841*
25	Interdependent assets		-	-	-	-
26	Other assets:	-	3,282,879	101,346	10,618,606	11,899,052
27	*Physical traded commodities*				-	-
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*		-	-	*1,231,742*	*1,046,981*
29	*NSFR derivative assets*		*365,498*			*365,498*
30	*NSFR derivative liabilities before deduction of variation margin posted*		*1,981,214*			*99,061*
31	*All other assets not included in the above categories*		*936,167*	*101,346*	*9,386,864*	*10,387,513*
32	Off-balance sheet items		4,303,309	2,994,040	5,038,569	1,022,928
33	**Total RSF**					**84,232,169**
34	**Net Stable Funding Ratio (%)**					**131.1792%**



EU LIQ2: net Stable Funding Ratio - NSFR as at 30.06.2021

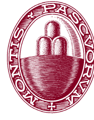
		Dec-21				
		a	b	c	d	e
		Unweighted value by residual maturity				
	(in currency amount)	No maturity	< 6 months	6 months to < 1yr	≥ 1yr	Weighted value
	Available stable funding (ASF) Items					
1	Capital items and instruments	6,200,872	-	-	1,789,595	7,990,467
2	*Own funds*	*6,200,872*	-	-	*1,789,595*	*7,990,467*
3	*Other capital instruments*		-	-	-	-
4	Retail deposits		52,812,236	7,004	35,830	49,686,061
5	*Stable deposits*		*42,255,568*	*2,728*	*4,053*	*40,149,434*
6	*Less stable deposits*		*10,556,668*	*4,276*	*31,777*	*9,536,626*
7	Wholesale funding:		29,675,183	2,303,386	39,746,650	50,573,424
8	*Operational deposits*		-	-	-	-
9	*Other wholesale funding*		*29,675,183*	*2,303,386*	*39,746,650*	*50,573,424*
10	Interdependent liabilities		-	-	-	-
11	Other liabilities:	116,502	3,834,104	-	5,864,850	5,864,850
12	*NSFR derivative liabilities*	*116,502*				
13	*All other liabilities and capital instruments not included in the above categories*		*3,834,104*	-	*5,864,850*	*5,864,850*
14	**Finanziamento stabile disponibile (ASF) totale**					**114,114,802**
	Required stable funding (RSF) Items					
15	Total high-quality liquid assets (HQLA)					10,880,256
EU-15a	Assets encumbered for more than 12m in cover pool		297,497	398,646	14,875,948	13,236,277
16	Deposits held at other financial institutions for operational purposes		-	-	-	-
17	Performing loans and securities:		21,485,548	4,061,404	45,642,034	47,446,928
18	*Performing securities financing transactions with financial customer-scollateralised by Level 1 HQLA subject to 0% haircut*		*6,792,057*	*47,727*	*9,184*	*1,888,047*
19	*Performing securities financing transactions with financial customer collateralised by other assets and loans and advances to financial institutions*		*2,840,392*	*107,524*	*237,623*	*597,820*
20	*Performing loans to non- financial corporate clients, loans to retail and small business customers, and loans to sovereigns, and PSEs, of which:*		*10,279,708*	*2,647,281*	*24,494,642*	*40,326,848*
21	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*579,280*	*803,059*	*11,956,382*	*21,655,134*
22	*Performing residential mortgages, of which:*		*547,831*	*673,942*	*16,258,459*	-
23	*With a risk weight of less than or equal to 35% under the Basel II Standardised Approach for credit risk*		*539,054*	*659,481*	*15,592,827*	-
24	*Other loans and securities that are not in default and do not qualify as HQLA, including exchange-traded equities and trade finance on-balance sheet products*		*1,025,560*	*584,931*	*4,642,126*	*4,634,212*
25	Interdependent assets		-	-	-	-
26	Other assets:	-	3,064,560	120,584	10,612,764	11,818,709
27	*Physical traded commodities*				-	-
28	*Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs*		-	-	*1,102,341*	*936,990*
29	*NSFR derivative assets*		*316,726*			*316,726*
30	*NSFR derivative liabilities before deduction of variation margin posted*		*1,863,021*			*93,151*
31	*All other assets not included in the above categories*		*884,813*	*120,584*	*9,510,423*	*10,471,842*
32	Off-balance sheet items		3,992,952	3,516,757	4,626,144	1,068,113
33	**Total RSF**					**84,450,283**
34	**Net Stable Funding Ratio (%)**					**135.1266%**



The Net Stable Funding Ratio (NSFR) represents the regulatory indicator used to monitor medium- to long-term liquidity risk. In the second half of 2021, the Group liquidity was characterized by the lack of signs of strain in the medium- and long-term, with the NSFR stable, exceeding 120%, significantly above the regulatory limit of 100%.

The indicator shows a decrease compared to 30 June 2021 (-5.5%, from 135.1% in June 2021 to 129.6% in December 2021) due in particular to the reduction in commercial funding with wholesale counterparties (also a consequence of the consequence of the strategy implemented by the strategy put in place by the Parent Company to optimise the cost of liquidity; in particular, the closure of the the relationship of the main depositor CSEA - Cassa per i Servizi Energetici e services), together with the decrease in secured secured institutional funding.

It should also be noted that no interdependent assets or liabilities are reported within the NSFR.



Annex XV - Disclosure of exposures to credit risk, dilution risk and credit quality

EU CRA: General qualitative information about credit risk

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

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

It is possible identified for two main areas:

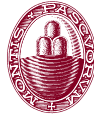
- loan disbursement strategies (definition of quality targets for access to credit);
- credit monitoring strategies (definition of minimum quality targets for maintenance of the loan disbursed).

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

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

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

The quantitative identification of credit risk is mainly applied, at operational level, to the

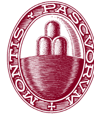


measurement of the risk-adjusted return of each individual operating unit. This process is carried out with operational control instruments. The credit risk identification and quantification instruments allow the Montepaschi Group to define hedging policies mainly consisting in defining "*risk-adjusted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

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

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

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 Annex XXI.

EU CRB: Additional disclosure related to the credit quality of assets

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

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

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

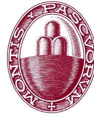
The losses must be recorded not only with reference to objective evidence of losses in value that are already apparent at the measurement date, but also based on expectations of future losses of value that have not yet occurred.

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

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

An exception to the above is made for purchased or originated credit-impaired (POCI) financial assets, the treatment of which is described in the previous paragraph.

For the MPS Group, the perimeter of the exposures classified in stage 3 corresponds to non-performing exposures, identified according to the definitions established by supervisory regulations (Bank of Italy

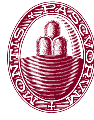


Circular No. 272 “Accounts Matrix”) and referred to in Bank of Italy Circular No. 262 “Bank financial statements: formats and rules for preparation”, since they are considered in line with IAS/IFRS accounting regulations, in terms of objective evidence of impairment. On the basis of the aforementioned circulars, the perimeter of impaired exposures corresponds to the aggregate “Non-performing Exposure”, defined by EU Regulation 2015/227 with which the EBA’s “Implementing Technical Standards (ITS) on Supervisory reporting on Forbearance and Non- Performing exposures” (EBA/ITS/2013/03/rev1 24/7/2014) was implemented.

In detail, the circulars identify the following categories of impaired assets:

- Bad Loans: the set of on- and off-balance sheet exposures in relation to a customer in a state of insolvency (even if not legally ascertained) or in substantially equivalent situations, irrespective of any loss forecasts formulated by the Bank;
- Unlikely to pay exposures: these represent on- and off-balance-sheet exposures, for which the conditions are not fulfilled for classification of the borrower among bad loans and for which it is considered unlikely that, without recourse to actions such as enforcement of the guarantees, the borrower will comply fully (in principal and/or interest) with their loan obligations. This assessment is made irrespectively of the presence of any amounts (or instalments) past-due and unpaid. The classification among unlikely. Classification among unlikely to pay is not necessarily linked to the explicit presence of anomalies, such as a missed repayment, but is linked to the existence of elements indicating a situation of risk that the borrower may default (e.g., a crisis of the industrial sector in which the borrower operates);
- Past due and/or over-the-limit exposures: on-balance-sheet exposures, other than those classified under bad or unlikely-to-pay loans, which, at the reporting date, have been past due and/or in arrears for more than 90 days, according to the materiality thresholds set out in the aforementioned regulations. For the MPS Group, impaired past due and/or over-the-limit exposures are determined in reference to the position of an individual borrower.

In addition, the Bank of Italy regulations, in line with EBA standards, introduced the definition of “Forborne Exposures”. These in particular are exposures that benefit from forbearance measures, which consist of concessions granted to a borrower, in terms of modification and/or refinancing of a pre-existing loan, exclusively owing to, or to prevent, a condition of financial difficult that could adversely affect their ability to fulfil the contractual commitments originally assumed and which would not have been granted to another borrower with a similar risk profile



not in financial difficulty. These concessions must be identified at the level of the single credit line and may regard exposures of debtors classified both in performing status and in non-performing (impaired) status. For exposures with forbearance measures classified as unlikely to pay, return among performing exposures can only occur after at least one year has elapsed from the time the concession was granted of origination (the "cure period") and all the other conditions provided for in paragraph 157 of the EBA's ITS are met.

In any case, renegotiated exposures should not be considered forborne when the borrower is not in a situation of financial difficulty (renegotiations carried out for commercial reasons).

In addition, the definition of restructured exposure used by the institution for the purposes of implementing Article 178(3)(d) of the CRR specified by the EBA guidelines on default under Article 178 of the CRR has been introduced. This involves the operational coding of positions for which – following the negotiation phase – firstly, a plan is approved by the lending banks, then an Agreement is signed and finally the Agreement becomes effective.

When the Agreement becomes effective, the MPS Group's lending banks provide for the operational coding of the "restructured position". The periodic reporting of forborne exposures (which include "restructured positions") to the Central Credit Register and the classification of the position is performed according to the regulations of Bank of Italy Circular no. 272 and the ITS issued by the EBA.

With regard to the classification and assessment of moratoria in accordance with the EBA guidelines and similar initiatives introduced independently by the banks in the context of the COVID-19 pandemic, please refer to the paragraphs "Forborne classification of loans affected by moratoria" and "Performing/non-performing classification of loans affected by moratoria" contained in "Part A - Accounting policies relevant to the preparation of consolidated financial statements in the context of the COVID-19 pandemic" of the Consolidated financial statements. Lastly, it should be noted that, as of 1 January 2021, the Group has adopted the new definition of default, resulting from the implementation of the "RTS on the materiality threshold for credit obligations past due under Article 178 of the CRR (EU Delegated Regulation 2018/171)" and the related "EBA Guidelines on the application of the definition of default under Article 178 of the CRR". The new regulations, while confirming the basis of default in the concepts of late payment and the unlikeliness to pay of the debtor, introduce some significant changes relating to materiality thresholds, netting rules and the criteria for returning to performing status. For further details, please refer to Part E "Information on risks and

hedging policies", Credit Risk, Section 3 – Non-Performing Loans of the Notes to the Consolidated Financial Statements as at 31 December 2021.

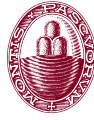
Impairment of performing financial assets

For performing financial assets, that is for assets not considered impaired, it is necessary to assess, at the level of the individual position, if there is a significant deterioration in credit risk, by comparing the credit risk associated with the financial instrument at the time of the valuation and that at the moment of initial disbursement or acquisition. This comparison is made using both quantitative and qualitative criteria. The results of the assessment, in terms of classification (or, more appropriately, staging) and measurement, are as follows:

- if these indicators are present, the financial asset is placed in stage 2. In this case, in accordance with international accounting standards and in the absence of a manifest impairment loss, the valuation requires the recognition of value adjustments equal to the expected losses over the entire residual life of the financial instrument. These adjustments are reviewed at each subsequent reporting date both to periodically check their appropriateness with respect to the constantly updated loss estimates, and to take into account - in the event that the indicators of a "significantly increased" credit risk cease to exist - the changed forecast horizon for calculating the expected loss;
- if these indicators are not present, the financial asset is placed in stage 1. In this case, the assessment requires the recognition expected losses on the specific the specific financial instrument over the next twelve months, in accordance with international accounting standards and even in there is no impairment loss. These adjustments are reviewed at each subsequent reporting date to verify that they are consistent with the constantly updated loss estimates and to take account of the changed forecast horizon for calculating the expected loss, should there be indicators of a "significantly increased" credit risk.

As regards the measurement of financial assets and, in particular, the identification of a "significant increase" in credit risk (a necessary and sufficient condition for classification of the asset being assessed in stage 2), the elements that constitute the main determinants to be taken into consideration, according to the standard and its operating procedure implemented by MPS Group, are the following:

- a relative quantitative criterion that is the "primary" driver, based on a change (above specified thresholds) in the lifetime probability of default with respect to the initial recognition of the financial instrument;
- absolute qualitative criteria represented by the identification of trigger events or

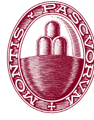


exceeding absolute thresholds as part of the credit monitoring process. They include:

- all exposures affected by forbearance measures and for which these measures are still active, regardless of whether the probation period underway is regular;
- exposures classified in the High-Risk management portfolio;

- backstop indicators, i.e. credit delinquency factors, whose manifestation suggest that there has been a significant increase in credit risk, unless there is evidence to the contrary. For purposes of assumption, the MPS group believes that the credit risk of the exposure must be considered significantly increased if there is an exposure that is past due for a period longer than 30 days, without prejudice to the application of the significance thresholds required by supervisory regulations for the purposes of classification under impaired exposures.

With particular reference to the qualitative criterion applicable to credit exposures with customers, the MPS Group has determined as a reference the change between the lifetime forward-looking cumulative probability of default (PD), calculated at the beginning of the contractual relationship, and the probability of default recorded at the measurement date. The revision of the model adopted as of June 2021 involved the identification of specific internal thresholds of variation between the PD measured at the beginning of the contractual relationship and the PD recognised at the measurement date, broken down by segment, product, initial rating class, vintage, geographical area and legal form. In the previous model, the counterparty, initial rating class and vintage drivers were the only ones used to estimate the thresholds. Exceeding these thresholds indicates a significant increase in credit risk and entails the consequent transfer of the individual credit line from stage 1 to stage 2. The comparison is based on homogeneous residual maturities and homogeneous PD models, e.g. if the definition of default changes over time, the original lifetime forward-looking cumulative PD is recalculated to take account of the new definition of default. The cumulative PDs subject to comparison are based on the same model used for ECL purposes (e.g. definition of PIT (Point in Time) PD, macroeconomic scenarios, expected life/contractual life). To obtain an unequivocal classification result, a cumulative PD – resulting from the weighted average of the cumulative PDs calculated for the individual prospective scenarios using the probabilities of the scenarios as weights – is used. Materiality thresholds are determined using quantile regression analysis by clusters to measure the historical level of the ratio between cumulative lifetime forward-looking PD at the reporting date and that at the origination date, which can be considered predictive of the transition to NPE. The thresholds are determined so as to minimise so-called false positives and false

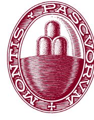


negatives and maximise true positives and true negatives.

For debt securities that do not have rated investment grade or higher, the relative quantitative criterion is based on the variation in lifetime forward-looking cumulative PD between the reporting date and the origination date compared to a given threshold. For corporate issuers, the multi-year PD curve is the one for vintage 1 of the Corporate segment, estimated entirely by the Group; for government issues, the multi-year PD curve is the one developed on the basis of the Moody's, Standard & Poor's and Fitch one-year migration matrices for government bonds; the Standard & Poor's migration matrices corresponding to the Europe area were used to estimate the multi-year PDs for credit exposures to banks and NBFIs. The cumulative PDs compared are based on the same model used for ECL purposes and macroeconomic scenarios. In order to obtain an unequivocal classification result, a cumulative PD - resulting from the weighted average of the cumulative PDs calculated for the individual prospective scenarios using the probabilities of the scenarios as weights – is used. Exposures are classified into stage 2 if the ratio between the lifetime forward-looking cumulative PD at the reporting date and that of the origination date exceeds a given materiality threshold equal, for both corporate and government bonds, to that used for corporate exposures in the form of loans.

Debt securities that, at the reporting date, have an investment grade rating, mainly relating to government bonds, are classified in stage 1 since the MPS Group has taken advantage of the "Low Credit Risk Exemption" for this type of security. This exemption consists of the practical expedient of not conducting the test for significant deterioration of credit risk on exposures whose credit risk is considered low. This exemption applies to securities with an investment grade rating at the measurement date, in full compliance with IFRS 9. In addition, given the presence of several purchase transactions against the same fungible asset (ISIN), it was necessary to identify a method to identify the tranches sold in order to determine the residual quantities to which credit quality at the initial recognition date can be associated, in order to compare it with credit quality at the measurement date. In this regard, the "first-in-first-out" or "FIFO" method was deemed appropriate, as it allows more transparent portfolio management, including from an operational point of view (front office), while at the same time allowing for a continuous update of the credit assessment on the basis of new purchases.

In general, the transfer criterion between stages is symmetric. Specifically, an improvement in credit risk such that the conditions that led to the significant increase in credit risk no longer exist, results in the financial instrument being reallocated from Stage 2 to Stage 1. In this case, the entity



recalculates the impairment loss over a twelve-month time horizon rather than the previously recognised lifetime losses, and consequently recognises a reversal in profit or loss.

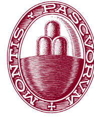
Once the allocation of exposures to the various stages of credit risk has been defined, the expected losses (ECL) are calculated at the level of individual transactions or tranches of securities, starting from IRB/management models, based on the Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) parameters, to which specific adjustments are made in order to ensure compliance with the specific requirements of IFRS 9, given the different requirements and purposes of accounting rules compared to prudential regulations.

For PD, LGD and EAD the following definitions apply:

- PD (Probability of Default): probability of migrating from performing to non-performing status over a time horizon of one year. In the models consistent with supervisory provisions, the PD factor is typically quantified through the rating. In the MPS Group, PD values derive from internal rating models, if available, supplemented by external assessments or by average segment/portfolio data;
- LGD (Loss Given Default): percentage of loss in the event of default. In the models consistent with the supervisory provisions, this is quantified using historical data on discounted recoveries on loans transferred to non-performing status;
- EAD (Exposure At Default) or credit equivalent: amount of exposure at the time of default.

As already noted above, to be able to observe the provisions of IFRS 9, it became necessary to make specific adjustments to the above factors, including the:

- adoption of a Point in Time (PIT) PD against the Through the Cycle (TTC) PD used for regulatory purposes;
- elimination from LGD of a number of additional components, namely indirect costs (non-recurring costs), additional conservative margins specifically introduced for regulatory models and the downturn component; and to reflect the most current recovery rates (PIT), the expectations on the forward-looking trends and the inclusion of any recovery fees in the case of recovery entrusted to third parties;
- use of multi-year PDs and, if necessary, LGDs, in order to determine the expected loss for the entire residual life of the financial instrument (stage 2 and 3);
- use of the effective interest rate of the individual transaction in the discounting of expected future cash flows, as opposed to the regulatory models, in which individual cash flows are discounted using the discounting rates determined in



accordance with prudential regulations.

In relation to the multi-year EAD, in line with IFRS 9, the MPS Group refers to plans at amortised cost, regardless of the related measurement methods (amortised cost or fair value through other comprehensive income). For commitments to disburse funds and guarantees given (off-balance sheet exposures), the EAD is instead taken at nominal value weighted for a specific credit conversion factor (CCF).

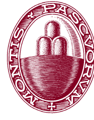
IFRS 9 establishes that, at each reporting date, an entity must measure the impairment of an asset based on expected credit loss, considering all information which is available, reasonable and consistent, without incurring excessive costs or efforts. The forward-looking approach established under IFRS 9 to determine expected loss therefore represents a central aspect of the measurement model.

That being established, the MPS Group uses the forward-looking approach to estimate expected losses, in both analytical and collective measurements. The forward-looking approach is applied to the following statistical parameters:

- PD: Probability of default, used for performing positions;
- LGD/EAD: Loss Given Default (LGD), used for both performing and non-performing positions subject to statistical assessment; Credit Conversion Factor (CCF) used to estimate the Exposure At Default (EAD) of performing positions;
- Cure/Danger rate: used for unlikely to pay exposures other than restructured positions and positions subject to statistical assessment as they fall below a certain threshold;
- haircuts for real estate collateral, used, when applicable, for analytical measurement of bad loans and unlikely to pay exposures other than restructured positions.

Given that the expected loss is estimated at the weighted average of a range of possible results, the above cited parameters are determined on the basis of historical data and then adjusted to take into account at least three economic scenarios covering a future time horizon of at least three years: baseline, improving and deteriorating.

The forward-looking macroeconomic indicators, provided by a leading, external consultant and internally re-formulated by the Research Function, are quantified on the basis of three possible future scenarios, which consider the economic variables deemed relevant (Italian GDP, interest rates, unemployment rate, commercial and residential real estate prices, inflation, equity indices), with a future time horizon of three years to which the respective probabilities of occurrence, determined internally by the Group, are assigned. More specifically, in addition to the “baseline” scenario considered most likely – i.e., the forward-



looking macroeconomic scenario on the basis of which the MPS Group develops its projections of P&L/balance sheet and risk data over a short and medium-term time horizon – an alternative best-case scenario (decidedly favourable) and a worst-case scenario (unfavourable) are developed.

The sensitivity of the statistical parameters to macroeconomic variables is estimated. The associations between the statistical parameter and macroeconomic variable are shown below:

- PD: Italy's GDP, unemployment rate, interest rates, inflation, commercial and residential property prices and stock indices;
- LGD/EAD: Italy's GDP, unemployment rate, commercial and residential property prices;
- cure/danger rates: Italy's GDP;
- haircut: commercial and residential property prices.

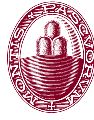
For those statistical parameters (e.g. PD) for which there is no linear relationship with the macroeconomic variable, the parameter measure is not calculated on the basis of the weighted average of the macroeconomic variables and using the respective probabilities as weights, but on the basis of certain separate parameter measures. In these cases, the weighted average is obtained at the level of expected loss.

Lastly, for the estimate of expected losses over the life of the instrument, the time horizon of reference is represented by the contractual maturity date; for instruments without maturity, the estimate of expected losses uses a time horizon estimated through a behavioural model for on-demand products and set to one year from the reporting date in other cases.

For further details on the model used to calculate expected losses in the context of the COVID-19 pandemic, please refer to the paragraphs "Update of macroeconomic scenarios", and "Measurement of the significant increase in credit risk (SICR) for IFRS 9 purposes" contained in "Part A - Accounting policies relative to the preparation of the Consolidated financial statements in the context of the COVID-19 pandemic" of the Consolidated financial statements.

Impairment of non-performing financial assets

As illustrated above, for impaired financial assets, to which a 100% probability of default is associated, the expected impairment loss amount for each loan is equal to the difference between the book value at the time of measurement (amortised cost) and the current value of the expected future cash flows, the latter calculated using the original effective interest rate (or a proxy of it if not available). Cash flows are estimated on the basis of the expected recovery over the lifetime of the loan, taking into account



the estimated realisable value net of any collateral and any costs associated with obtaining the guarantee through sale. In this regard, if the Group uses an outsourcer for the recovery of impaired loans, the fees paid to the outsourcer for activities strictly related to debt collection are considered in the estimation of impairment losses. These costs are considered for both performing and non-performing exposures, if for the latter it is likely that in the event of a transfer to bad loan status, the collection activities will be entrusted to a third party.

Fees paid to outsourcers are considered in LGD estimates used for statistical measurements of all administrative categories, in collection plans for bad loans, and in analytical measurements of unlikely to pay positions.

In order to estimate future cash flows and collection times, the non-performing loans of a significant amount are subject to an analytical measurement process. For certain similar categories of non-performing loans of insignificant amounts, the measurement processes allow loss forecasts based on lump-sum/statistical measurement methods, to be analytically assigned to each individual position. The perimeter of exposures subject to a lump-sum/statistical measurement process, i.e. based on statistical LGD grids, differentiated according to segment and length of time in the risk status (“vintage”) and suitably integrated to take account of forward-looking information, is composed of:

- bad loans and unlikely-to-pay positions with exposures less than or equal to an established materiality threshold of EUR 1 million;
- the total of non-performing past due exposures regardless of the exposure’s materiality threshold. In particular, these are loans with continuous past due or late payments, automatically identified by the BMPS Group’s IT procedures, according to the aforementioned rules of the Supervisory Authority.

The analytical-statistical measurement carried out for bad loans and unlikely-to-pay positions of less than EUR 1 million and for all past due loans, presents specific characteristics depending on the type of exposure concerned.

With reference to non-performing loans, the analytical-statistical measurement is based on non-performing LGD grids, where the LGD model is mainly characterised by the differentiation of loss rates according to the type of customer and length of time in risk status (“vintage”). The grids are also differentiated by other significant axes of analysis used to estimate the model (e.g. technical form, type of guarantee, geographical area, exposure band, etc.). The grids of recovery times are mainly broken down by regulatory segment and by other significant axes of analysis used to

estimate the model (e.g. recovery procedures, exposure band, technical form).

With regard to unlikely-to-pay and non-performing past due exposures, the valuation is performed by applying statistical LGD grids estimated specifically for positions classified in these administrative categories, in line with the LGD grids estimated for bad loans. The LGD for unlikely-to-pay and non-performing past due exposures is obtained by recalibrating the bad loan LGD through the danger rate module. The danger rate is a corrective multiplicative factor designed to recalibrate the bad loan LGD with the information available on other default events in order to obtain an LGD that is representative of all possible default events and their evolution.

The analytical-specific valuation of bad loans and unlikely-to-pay positions exceeding EUR 1 million is an assessment made by managers on the individual position based on a qualitative and quantitative analysis of the borrower's economic and financial situation, the riskiness of the credit position, the NPL reduction targets and strategies set out in the "NPL Plan", any mitigating factors (guarantees). The financial impact of the estimated debt recovery time is also taken into account.

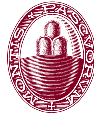
For bad loans in particular, a variety of factors are deemed relevant depending on the characteristics of the positions and must be assessed with the utmost accuracy and prudence. These include the:

- nature of the credit, whether or unsecured;
- net assets of obligors/third parties providing collateral;
- complexity of existing or potential disputes and/or underlying legal issues;
- obligors' exposure to the banking system and other creditors;
- most recent financial statements available;
- legal status of obligors and any pending bankruptcy and/or individual proceedings.

To determine the estimated realisable value of real-estate backed loans and take into account both the historical recovery data and forward-looking considerations, in line with IFRS 9, the approach adopted is focused on the valuation of real estate assets based on the expected average auction and the corresponding reduction in the observed price, calculating the average haircuts differentiated by type of real estate collateral (residential and non-residential).

Regarding the bad real estate loans deriving from leasing agreements, in view of the specific characteristics of the product (absence of auctions), the haircut is estimated as the loss of value of the asset between the last available appraisal value and the expected sale price, determined on the basis of the evidence emerging from the recovery process.

Moreover, with regard to unlikely-to-pay



positions, the measurement is based on a qualitative and quantitative analysis of the debtor's economic and financial situation and on an accurate assessment of the risk situation. In the case of unlikely-to-pay loans secured by real-estate, the haircut is applied not to the entire market value of the collateral (as is the case for bad loans) but only to the portion of the loan exposure that is expected to move to bad loan status; i.e. the cure rate of the related exposures is taken into account.

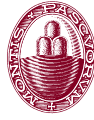
The calculation of the impairment loss requires an assessment of the future cash flows that the debtor is expected to be able to generate and that will also be used to service the financial debt. This estimate should be made based on two alternative approaches:

- the Going Concern Approach: the borrower's operating cash flows (or that of the actual guarantor) continue to be generated and are used to repay borrowings on the basis of the scheduled repayment plans. The going concern assumption does not exclude the possible realisation of collateral, but only to the extent that this can occur without jeopardising the borrower's ability to generate future cash flows. The going concern approach also applies to cases where the recoverability of the exposure is based on the possible disposal of assets by the borrower or extraordinary transactions;
- the Gone Concern Approach: applicable in cases where it is believed that the borrower's cash flows will cease. This is a scenario that may apply to positions that are expected to be classified to bad loan status. Within this context, assuming that shareholder intervention and/or extraordinary debt restructuring transactions in a turnaround situation are not reasonably feasible, the recovery of the debt is essentially based on the value of the collateral securing the loan and, alternatively, on the realisable value of the assets, taking into account liabilities and any rights of pre-emption.

EU CR1: Performing and non-performing exposures and related provisions

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	Gross carrying amount/nominal amount						Accumulated impairment, accumulated negative changes in fair value due to credit risk and provisions							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			Accumulated partial write-off	On performing exposures	On non-performing exposures
		of which STAGE 1	of which STAGE 2		of which STAGE 2	of which STAGE 3		of which STAGE 1	of which STAGE 2		of which STAGE 2	of which STAGE 3			
Cash balances at central banks and other demand deposits	**21,762,849**	**21,762,849**	**-**	**-**	**-**	**-**	**-198**	**-198**	**-**	**-**	**-**	**-**	**-**	**24**	**-**
Loans and advances	**81,196,957**	**68,404,246**	**12,663,898**	**4,101,955**	**-**	**4,051,485**	**-436,173**	**-78,544**	**-357,405**	**-1,968,825**	**-**	**-1,931,882**	**-43,903**	**63,669,911**	**1,833,867**
Central banks	*25,001*	*25,001*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
General governments	*1,787,060*	*1,737,026*	*50,034*	*49,656*	*-*	*49,656*	*-2,121*	*-1,670*	*-451*	*-9,778*	*-*	*-9,778*	*-4*	*138,107*	*25,122*
Credit institutions	*3,494,618*	*3,494,465*	*153*	*12,708*	*-*	*12,708*	*-1,612*	*-1,602*	*-10*	*-12,405*	*-*	*-12,405*	*-*	*808,149*	*-*
Other financial corporations	*6,902,078*	*6,776,969*	*125,110*	*30,689*	*-*	*27,732*	*-7,147*	*-3,733*	*-3,413*	*-14,277*	*-*	*-11,383*	*-202*	*5,341,124*	*11,391*
Non-financial corporations	*34,156,909*	*25,448,942*	*8,603,396*	*2,823,324*	*-*	*2,786,279*	*-285,922*	*-42,325*	*-243,372*	*-1,503,330*	*-*	*-1,477,937*	*-41,361*	*24,259,308*	*1,096,709*
Of which SMEs	*23,635,939*	*17,040,081*	*6,549,289*	*2,447,704*	*-*	*2,429,732*	*-240,165*	*-28,473*	*-211,692*	*-1,298,543*	*-*	*-1,284,869*	*-14,397*	*19,120,866*	*993,188*
Households	*34,831,292*	*30,921,843*	*3,885,206*	*1,185,578*	*-*	*1,175,111*	*-139,372*	*-29,214*	*-110,158*	*-429,035*	*-*	*-420,379*	*-2,336*	*33,123,222*	*700,645*
Debt securities	**14,885,921**	**14,750,122**	**19,600**	**19,827**	**-**	**-**	**-11,139**	**-11,051**	**-88**	**-18,700**	**-**	**-**	**-**	**-**	**-**
Central banks	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
General governments	*11,561,490*	*11,561,490*	*-*	*-*	*-*	*-*	*-8,489*	*-8,489*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
Credit institutions	*1,247,469*	*1,235,027*	*12,094*	*-*	*-*	*-*	*-759*	*-699*	*-61*	*-*	*-*	*-*	*-*	*-*	*-*
Other financial corporations	*1,854,614*	*1,757,494*	*7,506*	*18,700*	*-*	*-*	*-1,341*	*-1,314*	*-27*	*-18,700*	*-*	*-*	*-*	*-*	*-*
Non-financial corporations	*222,347*	*196,110*	*-*	*1,127*	*-*	*-*	*-550*	*-550*	*-*	*-*	*-*	*-*	*-*	*-*	*-*
Off-balance-sheet exposures	**40,281,707**	**37,582,386**	**1,559,989**	**644,164**	**-**	**636,100**	**37,678**	**13,528**	**17,049**	**106,316**	**-**	**104,877**		**7,715,420**	**15,240**
Central banks	*66*	*66*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*		*-*	*-*
General governments	*1,031,507*	*1,016,088*	*15,358*	*1,784*	*-*	*1,784*	*30*	*10*	*21*	*-*	*-*	*-*		*15,036*	*-*
Credit institutions	*2,003,415*	*1,997,595*	*-*	*6,993*	*-*	*6,993*	*354*	*354*	*-*	*267*	*-*	*267*		*10,592*	*-*
Other financial corporations	*8,358,069*	*8,080,088*	*13,570*	*13,597*	*-*	*13,597*	*222*	*121*	*102*	*385*	*-*	*385*		*6,831,160*	*3*
Non-financial corporations	*26,365,149*	*24,091,053*	*1,408,296*	*598,148*	*-*	*590,084*	*34,274*	*11,941*	*15,232*	*104,115*	*-*	*102,676*		*759,378*	*13,144*
Households	*2,523,501*	*2,397,496*	*122,764*	*23,642*	*-*	*23,642*	*2,797*	*1,102*	*1,695*	*1,550*	*-*	*1,550*		*99,254*	*2,094*
Total	**158,127,434**	**142,499,602**	**14,243,488**	**4,765,947**	**-**	**4,687,586**	**-409,832**	**-76,265**	**-340,444**	**-1,881,210**	**-**	**-1,827,005**	**-43,903**	**71,385,355**	**1,849,107**

The year was characterised by a slight decrease in the volume of performing loans, following a decline in repurchase agreements for the subsidiary MPS CS, and by a migration from STAGE 2 to STAGE 1 linked to the application of the 2022-2024 macroeconomic scenarios which incorporate the effects of positive GDP growth post-Covid. The non-performing portfolio, which has remained steady in terms of volumes, was subject to an update of the LGD Model and the application of a floor on provisions for UNSECURED positions classified to UNLIKELY-TO-PAY STATUS, with a consequent increase in the cost of credit.



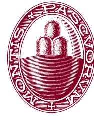
EU CR1-A: Maturity of exposures

		a	b	c	d	e	f
		Net exposure value					
		On demand	< = 1 year	> 1 year < = 5 years	> 5 years	No stated maturity	Total
1	Loans and advances	2,773,799	18,473,984	15,589,177	44,767,878		81,604,838
2	Debt securities	-	1,467,186	4,001,318	9,342,123		14,810,626
3	**Total**	**2,773,799**	**19,941,169**	**19,590,495**	**54,110,001**	**-**	**96,415,464**

The item Loans and Advances does not include loans and advances classified as held for sale, balances with central banks and other sight deposits.

EU CR2: Changes in the stock of non-performing loans and advances

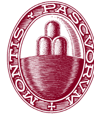
		a
		Gross carrying amount
1	**Initial stock of non-performing loans and advances**	**3,993,782**
2	Inflows to non-performing portfolios	1,339,572
3	Outflows from non-performing portfolios	-1,231,399
4	Outflows due to write-offs	-114,972
5	Outflow due to other situations	-1,116,427
6	**Final stock of non-performing loans and advances**	**4,101,955**



As at 31 December 2021, gross non-performing loans were less than 5%, therefore the information reported below is limited to the tables required when this parameter is not exceeded. In addition, Table CQ4 is not applicable because the international originating exposures are less than 10% of the total.

EU CQ1: Credit quality of forborne exposures

	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				
Cash balances at central banks and other demand deposits	-	-	-	-	-	-	-	-
Loans and advances	**2,214,820**	**1,529,695**	**1,529,695**	**1,493,086**	**-134,736**	**-608,245**	**2,660,158**	**804,874**
Central banks	-	-	-	-	-	-	-	-
General governments	*11,842*	-	-	-	*-136*	-	-	-
Credit institutions	-	-	-	-	-	-	-	-
Other financial corporations	*37,007*	*12,806*	*12,806*	*9,849*	*-111*	*-7,310*	*37,246*	*839*
Non-financial corporations	*1,348,944*	*1,045,407*	*1,045,407*	*1,011,966*	*-92,723*	*-474,207*	*1,546,969*	*474,599*
Households	*817,027*	*471,482*	*471,482*	*471,271*	*-41,766*	*-126,728*	*1,075,943*	*329,437*
Debt securities	**26,237**	**1,127**	**1,127**	-	-	-	-	-
Loan commitments given	**39,793**	**29,975**	**29,975**	**29,975**	**130**	-	**9,137**	**2,439**
Total	**2,280,851**	**1,560,797**	**1,560,797**	**1,523,062**	**-134,606**	**-608,244**	**2,669,296**	**807,313**



EU CQ3: Credit quality of performing and non-performing exposures by past due days

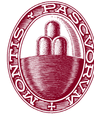
	Gross carrying amount/nominal amount											
	Performing exposures			Non-performing exposures								
		Not past due or past due ≤ 30 days	Past due > 30 days ≤ 90 days		Unlikely to pay that are not past due or are past due ≤ 90 days	Past due > 90 days ≤ 180 days	Past due > 180 days ≤ 1 year	Past due > 1 year ≤ 2 years	Past due > 2 years ≤ 5 years	Past due > 5 years ≤ 7 years	Past due > 7 years	Of which defaulted
Cash balances at central banks and other demand deposits	**21,762,849**	**21,762,849**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Loans and advances	**81,196,957**	**81,005,381**	**191,576**	**4,101,955**	**1,546,580**	**187,831**	**357,687**	**379,919**	**685,091**	**373,284**	**571,563**	**4,101,955**
Central banks	*25,001*	*25,001*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
General governments	*1,787,060*	*1,761,300*	*25,759*	*49,656*	*45,208*	*2*	*83*	*306*	*3,398*	*139*	*520*	*49,656*
Credit institutions	*3,494,618*	*3,493,721*	*897*	*12,708*	*3,699*	*0*	*0*	*0*	*0*	*0*	*9,009*	*12,708*
Other financial corporations	*6,902,078*	*6,901,995*	*84*	*30,689*	*17,759*	*77*	*171*	*3,042*	*6,224*	*3,154*	*262*	*30,689*
Non-financial corporations	*34,156,909*	*34,028,884*	*128,025*	*2,823,324*	*1,022,183*	*110,844*	*244,341*	*248,691*	*493,115*	*251,465*	*452,684*	*2,823,324*
Of which SMEs	*23,635,939*	*23,598,829*	*37,111*	*2,447,704*	*870,991*	*77,732*	*193,549*	*222,817*	*439,799*	*219,280*	*423,535*	*2,447,704*
Households	*34,831,292*	*34,794,480*	*36,812*	*1,185,578*	*457,731*	*76,908*	*113,092*	*127,880*	*182,354*	*118,526*	*109,087*	*1,185,578*
Debt securities	**14,885,921**	**14,885,921**	**0**	**19,827**	**1,127**	**0**	**0**	**0**	**18,700**	**0**	**0**	**19,827**
Central banks	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
General governments	*11,561,490*	*11,561,490*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Credit institutions	*1,247,469*	*1,247,469*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Other financial corporations	*1,854,614*	*1,854,614*	*0*	*18,700*	*0*	*0*	*0*	*0*	*18,700*	*0*	*0*	*18,700*
Non-financial corporations	*222,347*	*222,347*	*0*	*1,127*	*1,127*	*0*	*0*	*0*	*0*	*0*	*0*	*1,127*
Off-balance-sheet exposures	**40,281,707**			**644,164**								**644,164**
Central banks	*66*			*0*								*0*
General governments	*1,031,507*			*1,784*								*1,784*
Credit institutions	*2,003,415*			*6,993*								*6,993*
Other financial corporations	*8,358,069*			*13,597*								*13,597*
Non-financial corporations	*26,365,149*			*598,148*								*598,148*
Households	*2,523,501*			*23,642*								*23,642*
Total	**158,127,434**	**117,654,151**	**191,576**	**4,765,947**	**1,547,707**	**187,831**	**357,687**	**379,919**	**703,791**	**373,284**	**571,563**	**4,765,947**

EU CQ5: Credit quality of loans and advances by industry

		a	b	c	d	e	f
		Gross carrying amount					
			Of which: non-performing		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: defaulted			
1	Agriculture, forestry and fishing	1,308,496	65,234	65,234	1,305,219	-35,172	-42
2	Mining and quarrying	88,339	19,573	19,573	88,339	-7,734	0
3	Manufacturing	10,647,182	590,387	590,387	10,543,685	-364,050	-12,991
4	Electricity, gas, steam and air conditioning supply	1,127,410	90,661	90,661	1,122,807	-53,468	0
5	Water supply	884,974	35,465	35,465	884,974	-30,160	0
6	Construction	3,288,381	409,581	409,581	3,283,563	-297,300	-3,301
7	Wholesale and retail trade	6,914,719	396,738	396,738	6,910,116	-267,508	0
8	Transport and storage	1,630,944	184,550	184,550	1,630,944	-107,309	0
9	Accommodation and food service activities	2,094,767	181,530	181,530	2,094,217	-108,741	0
10	Information and communication	716,467	58,571	58,571	716,467	-35,491	0
11	Financial and insurance activities	84,846	638	638	84,846	-1,050	0
12	Real estate activities	4,267,388	463,322	463,322	4,266,393	-271,847	-568
13	Professional, scientific and technical activities	1,341,370	125,389	125,389	1,340,313	-98,614	-959
14	Administrative and support service activities	1,045,203	72,531	72,531	1,038,431	-31,258	-6,105
15	Public administration and defence, compulsory social security	8,052	0	0	8,052	-80	0
16	Education	40,837	1,770	1,770	40,837	-966	0
17	Human health services and social work activities	575,152	46,042	46,042	575,152	-17,895	0
18	Arts, entertainment and recreation	280,239	24,663	24,663	280,239	-15,082	0
19	Other services	635,467	56,679	56,679	635,467	-21,559	0
20	**Total**	**36,980,233**	**2,823,324**	**2,823,324**	**36,850,060**	**-1,765,286**	**-23,966**

EU CQ7: Collateral obtained by taking possession and execution processes

		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	86,745	-58,183
3	*Residential immovable property*	*62*	*-39*
4	*Commercial Immovable property*	*38,466*	*-18,415*
5	*Movable property (auto, shipping, etc.)*	-	-
6	*Equity and debt instruments*	*48,216*	*-39,729*
7	*Other*	-	-
8	**Total**	**86,745**	**-58,183**



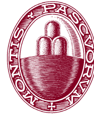
On 2 June 2020, the EBA published its Guidelines on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis (EBA/GL/2020/07). These guidelines require that information be provided on:

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

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

Information on loans and advances subject to legislative and non-legislative moratoria (Template 1 – EBA/GL 2020/07) as at 31 December 2021

		Gross carrying amount							Accumulated impairment, accumulated negative changes in fair value due to credit risk							Gross carrying amount
			Performing			Non performing				Performing			Non performing			
				Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days			Of which: exposures with forbearance measures	Of which: Instruments with significant increase in credit risk since initial recognition but not credit-impaired (Stage 2)		Of which: exposures with forbearance measures	Of which: Unlikely to pay that are not past-due or past-due <= 90 days	Inflows to non-performing exposures
1	**Loans and advances subject to moratorium**	**122,079**	**115,902**	**4,821**	**33,680**	**6,177**	**1,275**	**6,122**	**-3,231**	**-1,248**	**-313**	**-1,058**	**-1,983**	**-148**	**-1,960**	**2,642**
2	of which: Households	26,199	25,951	1,112	2,875	248	-	240	-326	-200	-73	-136	-125	-	-120	524
3	*of which: Collateralised by residential immovable property*	*20,076*	*20,076*	*961*	*2,196*	-	-	-	*-119*	*-119*	*-47*	*-87*	-	-	-	-
4	of which: Non-financial corporations	90,938	85,009	3,709	30,315	5,929	1,275	5,881	-2,881	-1,024	-240	-904	-1,857	-148	-1,840	2,118
5	*of which: Small and Medium-sized Enterprises*	*76,962*	*71,033*	*3,709*	*29,863*	*5,929*	*1,275*	*5,881*	*-2,817*	*-960*	*-240*	*-881*	*-1,857*	*-148*	*-1,840*	*2,118*
6	*of which: Collateralised by commercial immovable property*	*65,587*	*59,757*	*3,085*	*23,850*	*5,831*	*1,273*	*5,831*	*-2,608*	*-790*	*-217*	*-722*	*-1,818*	*-146*	*-1,818*	*1,794*



The measures applied are rescheduling of payments following total suspensions, for the most part, or only the principal.

The active EBA-compliant moratoria in performing status amount to approximately EUR 115 million, accounting for 2% of the total moratoria granted, and mainly refer to the residual moratoria granted under the ABI Agreements and/or Gasparrini Law. The rest of the moratoria that have already expired relate to customers who have not made use of the various statutory extensions granted to deal with the ongoing pandemic crisis.

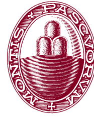
The NPE portion of the Eba-Compliant moratoria is clearly insignificant, reflecting the fact that the financial distress caused by Covid-19 was a temporary situation that did not require the application of measures to extend the suspension of repayments.

Overall, non-financial businesses with a moratorium granted for a period not exceeding the Temporary Framework limit of 9 months of suspension in total, account for a residual exposure of approximately EUR 1.7 billion, while there are approximately EUR 5.2 billion in exposures of businesses that have benefited from a longer suspension period and for this reason have been subject to the standard financial distress assessment process for the proper application of forbearance measures.

The economic losses are calculated using the Delta Net Present Value approach and are of an insignificant amount in line with the actuarial neutrality of the measures provided for by the "Cura Italia" decree (subsequently extended by the so-called August Decree no. 104 of August 14, 2020 and further extended. Breakdown.

Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria (Template 2 – EBA/GL 2020/07 as at 31 December 2021

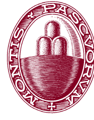
		a	b	c	d	e	f	g	h	i
			Gross carrying amount							
						Residual maturity of moratoria				
		Number of obligors		Of which: legislative moratoria	Of which: expired	≤ 3 months	> 3 months ≤ 6 months	> 6 months ≤ 9 months	> 9 months ≤ 12 months	> 1 year
1	**Loans and advances for which moratorium was offered**	**48,146**	**5,636,142**							
2	**Loans and advances subject to moratorium (granted)**	**47,691**	**5,545,322**	**3,078,334**	**5,423,243**	**98,403**	**17,810**	**2,328**	**1,161**	**2,377**
3	of which: Households		3,238,676	1,719,345	3,212,477	18,517	4,212	2,195	1,161	113
4	*of which: Collateralised by residential immovable property*		*3,100,054*	*1,641,515*	*3,079,978*	*12,856*	*4,212*	*2,014*	*881*	*113*
5	of which: Non-financial corporations		1,744,273	1,282,547	1,653,335	74,944	13,598	132	-	2,265
6	*of which: Small and Medium-sized Enterprises*		*1,497,255*	*1,237,340*	*1,420,292*	*60,968*	*13,598*	*132*	*-*	*2,265*
7	*of which: Collateralised by commercial immovable property*		*1,048,574*	*824,852*	*982,987*	*49,593*	*13,598*	*132*	*-*	*2,265*



Over the course of 2021, support to businesses continued through disbursements guaranteed by the Central Guarantee Fund, Ismea and Sace, for an outstanding amount of approximately EUR 10.4 billion, of which 0.7% was classified as NPE in the second half of 2021; extremely limited use was made of forbearance measures to legal entities that, having completed their pre-amortisation period, required debt rescheduling measures; 88% of total credit disbursed is covered by state guarantees; of the non-financial enterprises benefiting from liquidity support measures, those in the manufacturing and trade sectors account for 59% followed by the accommodation and food sector at 7%.

Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis (Template 3 – EBA/GL 2020/07) as at 31 December 2021

		a	b	c	d
		Gross carrying amount		*Maximum amount of the guarantee that can be considered*	*Gross carrying amount*
			of which: forborne	*Public guarantees received*	*Inflows to non-performing exposures*
1	**Newly originated loans and advances subject to public guarantee schemes**	**10,351,012**	**104,304**	**9,072,676**	**71,345**
2	of which: Households	1,074,837			6,152
3	*of which: Collateralised by residential immovable property*	*159,480*			*0*
4	of which: Non-financial corporations	9,189,280	101,866	7,995,068	65,184
5	*of which: Small and Medium-sized Enterprises*	*7,051,158*			*53,969*
6	*of which: Collateralised by commercial immovable property*	*57,641*			*0*



Annex XVII - Disclosure of the use of credit risk mitigation techniques

EU CRC – Qualitative disclosure requirements related to CRM techniques

Compensation Policies

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

Management of collateral

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

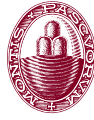
The disbursement of loans secured by collaterals is subject to specific control measures, differentiated by type of guarantee pledged, which are applied during the phase of disbursement and monitoring. Two main types of guarantees, subject to different regulations, can be identified by volumes of loans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

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

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

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

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



the case of redemption of the pledge, the repayment should be made at the bank (collection).

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

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

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

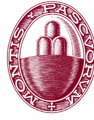
- acquisition (also multiple acquisition); the controls of (formal and amount) consistency with the guarantees proposed during the authorisation phase are performed in this stage;
- adjustment/change/amendment; useful to amend the characteristics of a guarantee without interrupting loan protection;
-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

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

The value of the property is estimated again:

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

In this respect, it is important to underline that an assessment is made on the assets



pledged as collateral during the mortgage loan approval stage. In the specific case of Retail mortgage loans, a dedicated disbursement process subordinates disbursement to the submission of a technical survey on the asset pledged, thus ensuring the fulfillment of obligations and compliance with relevant validity requirements upon acquisition of the guarantee.

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

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

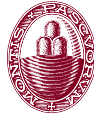
Collaterals accepted by the Montepaschi Group

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

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

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

All types that may be received by the Montepaschi Group are entered into a



structured collateral management process, under which all sub-steps are operationally shared.

Management of personal guarantees

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

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

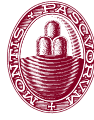
- Sovereign governments and central banks;
- Public sector and local agencies;
- Multilateral development banks;
- Regulated intermediaries;
- Businesses that have a creditworthiness rating by an ECAI (External Credit Assessment Institution) of not less than 2 on the creditworthiness rating scale;
-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

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

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

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

Based on Group internal regulations on CRM, the MPS Group has introduced two different policies for treatment of the exposures backed by personal guarantees, which fall within the AIRB scope. The first approach concerns exposures backed by guarantees issued by counterparties treated according to the Standard approach. The guarantees granted by these entities are treated by applying the weighting (RW) of



the guarantor to the guaranteed portion of the exposure (substitution method). The second approach concerns all those exposures that fall within the AIRB perimeter assisted by personal guarantees issued by counterparties that also fall within the AIRB perimeter. In this case, a modelling approach is applied to the guaranteed exposure based on internal estimates (personal LGD) instead of the LGD for unsecured positions (unsecured LGD).

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

Personal guarantees accepted by the Montepaschi Group

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

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

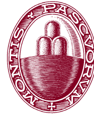
Credit derivatives are not used for CRM purposes, while other instruments are used where the eligibility requirements of the relevant regulatory framework are applicable. The main parties issuing the above credit-protection instruments are:

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

Concentration of collaterals

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

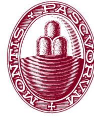
For the phase of monitoring the assets pledged, the Group has a policy establishing the amounts of the secured exposure and the age of the appraisal, beyond which the properties are appraised again. For exposures lower than the thresholds defined, the Group in any event conducts half-yearly monitoring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



EU CR3 – CRM techniques overview: Disclosure of the use of credit risk mitigation techniques

		a	b	c	d	e
		Unsecured carrying amount	Secured carrying amount			
				Of which secured by collateral	Of which secured by financial guarantees	
						Of which secured by credit derivatives
1	**Loans and advances**	**41,557,985**	**65,503,777**	**49,894,886**	**15,608,891**	**-**
2	Debt securities	14,905,747	-	-	-	-
3	**Total at 31/12/2021**	**56,463,732**	**65,503,777**	**49,894,886**	**15,608,891**	**-**
4	Of which non-performing exposures	2,287,916	1,833,867	1,437,452	396,415	-
EU-5	*Of which defaulted*	*2,287,916*	*1,833,867*	*1,437,452*	*396,415*	-

At the end of December 2021, more than 61% of loans and advances were secured. Of these, over 77% were secured by collateral (real estate or financial). The amount of exposures secured by personal guarantees grew by more than 48% compared to 31/12/2020, mainly due to exposures subject to state guarantees.



Annex XIX - Disclosure of the use of standardised approach

EU CRD: Qualitative disclosure requirements related to standardised model

In 2021, 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:

- S&P Global Ratings Europe Limited;
- Moody's Investor Service;
- Fitch Rating.

When determining capital requirements, it should be noted that if there are two evaluations of the same customer, the more conservative one is adopted. In the case of three evaluations, the intermediate is used.
Regarding the disclosure on information on association of external rating of each nominated ECAI (External Credit Assessment Institutions) or ECA (Export Credit Agencies), please note that the Group uses the tables provided by the Commission Implementing Regulation (EU) 2016/1799 of 7 October 2016 as subsequently amended, and by the Commission Implementing Regulation (EU) 2016/1801 of 11 October 2016. At present the standard approach is applied to all portfolios and entities of the Group with the exception of the portfolios, exposures to corporates and retail exposures, belonging to the following entities:

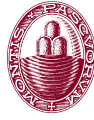
- Banca Monte dei Paschi di Siena
- MPS Capital Services Banca per le Imprese
- MPS Leasing & Factoring

for which the advanced IRB model is adopted, details of which are described in Annex XXI.
The table below summarises the list of ECAIs and ECAs 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	✓ S&P Global Ratings Europe Limited ✓ Moody's Investor Service ✓ Fitch Ratings	*Solicited and Unsolicited*
Exposures to regional governments or local authorities		
Exposures to public sector entities		
Exposures to multilateral development banks		
Exposures to institutions		
Exposures to corporates		
Exposures in the form of units or shares in collective investment undertakings ('CIUs')		
Items representing securitization positions		
Exposures in the form of covered bonds		

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

• *unsolicited rating: a rating assigned without a request from the entity evaluated and without payment of a fee.*



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

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

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.).

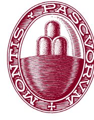
The pre-CRM exposure refers to the amount of on- and off-balance sheet exposures "without" risk mitigation and does not factor in the reduction in exposure resulting from the application of collateral and personal guarantees. The post-CRM exposure shows the value of the same exposures "with" the risk mitigation effect, i.e. net of the guarantees mentioned above. In the case of personal guarantees, which result in the transfer of risk, the portion of the exposure that is guaranteed is based on the guarantor's regulatory portfolios and risk weightings, while the residual portion of the exposure is based on the guaranteed party's information, thus the difference between the "pre" and "post" credit risk mitigation exposure represents the amount of collateral allowed.

EU CR4: Standardised approach – Credit risk exposure and CRM effects

	Exposures class	a	b	c	d	e	f
		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	34,513,771	183,580	49,475,072	224,605	1,212,187	2.4390%
2	Regional governments or local authorities	1,129,590	459,386	1,143,100	135,384	255,122	19.9550%
3	Public sector entities	396,614	534,011	394,688	61,870	438,492	96.0430%
4	Multilateral development banks	51,496	15,000	51,496	-	-	0.0000%
5	International organisations	30,560	-	30,560	-	-	0.0000%
6	Institutions	1,928,468	1,426,364	1,960,492	187,937	730,335	33.9939%
7	Corporates	2,809,922	2,440,047	2,477,184	513,724	2,275,565	76.0827%
8	Retail	688,872	819,883	552,004	42,364	408,003	68.6448%
9	Secured by mortgages on immovable property	1,264,133	16,378	1,255,302	7,081	470,826	37.2966%
10	Exposures in default	175,364	69,946	124,278	5,089	139,100	107.5231%
11	Higher-risk categories	24,187	44,305	24,187	5,751	44,908	150.0000%
12	Covered bonds	663,955	-	663,955	-	77,817	11.7202%
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
14	collective investments undertakings	301,137	-	301,137	-	374,097	124.2282%
15	Equity	905,381	-	905,381	-	1,751,117	193.4122%
16	Other items	5,606,126	-	5,606,126	-	3,599,060	64.1987%
17	**Total as at 31/12/2021**	**50,489,575**	**6,008,902**	**64,964,963**	**1,183,805**	**11,776,629**	**17.8032%**
17	**Total as exposure**	**56,498,477**		**66,148,768**		**11,776,629**	**17.8032%**

EU CR5: Standardised approach

	Exposures classes	Classes of credit worthiness (Weighting Factors)															Total	Without rating
		0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	225 - 250%	370%	1250%	Others		
1	Central governments or central banks	48,826,634	-	-	-	-	-	49,012	-	-	581,455	91	242,484	-	-	-	49,699,677	15,907,297
2	Regional governments or local authorities	-	-	-	-	1,278,484	-	-	-	-	-	-	-	-	-	-	1,278,484	1,278,484
3	Public sector entities	-	-	-	-	6,246	-	26,138	-	-	424,174	-	-	-	-	-	456,558	423,085
4	Multilateral development banks	51,496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51,496	51,496
5	International organisations	30,560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30,560	30,560
6	Institutions	40,366	208,691	-	-	1,120,630	-	551,009	-	-	227,732	-	-	-	-	-	2,148,429	500,075
7	Corporates	1,215	-	-	-	584,139	-	201,687	-	-	2,179,211	24,657	-	-	-	-	2,990,908	2,273,202
8	Retail	-	-	-	-	-	1,039	-	-	593,329	-	-	-	-	-	-	594,368	507,823
9	Secured by mortgages on immovable property	-	-	-	-	-	914,516	347,867	-	-	-	-	-	-	-	-	1,262,383	1,130,507
10	Exposures in default	-	-	-	-	-	-	-	-	-	109,903	19,465	-	-	-	-	129,367	98,668
11	Higher-risk categories	-	-	-	-	-	-	-	-	-	-	29,939	-	-	-	-	29,939	29,939
12	Covered bonds	-	-	-	549,744	114,211	-	-	-	-	-	-	-	-	-	-	663,955	-
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Collective investment undertakings	338	-	-	-	13,954	-	1,535	-	-	115,698	169,375	218	-	19	-	301,137	300,926
15	Equity	-	-	-	-	-	-	-	-	-	341,556	-	563,824	-	-	-	905,381	818,417
16	Other items	1,407,451	-	-	-	752,246	-	-	-	-	3,442,067	4,363	-	-	-	-	5,606,126	5,408,750
17		50,358,061	208,691	-	549,744	3,869,910	915,555	1,177,248	-	593,329	7,421,795	247,889	806,527	-	19	-	66,148,768	28,759,229



Annex XXI - Disclosure of the use of the IRB approach to credit risk

EU CRE – Qualitative disclosure requirements related to IRB approach

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

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

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

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

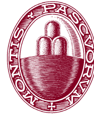
For portfolios other than those mentioned above, the standard approach is used.

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, MPS Leasing & Factoring;
- the remaining legal entities of the Montepaschi Group use the standard approach.

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

The Lending Risk Area operates independently from the Internal Validation Function. The autonomy and independence validation function, organisationally



separate from the credit risk control unit is, in accordance with the regulatory technical standards (EBA/RTS/2016/03) ensured by the Internal Audit Function as part of the annual review on Internal Validation function.

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

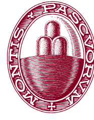
The management of relations between the control functions is the responsibility of the Committee for the Coordination of Functions with Control Responsibilities, which is responsible for coordinating the various projects connected with the Internal Control System, discussing operational and methodological aspects, identifying measures for improvement, impacts and strategies, and monitoring the anomaly resolution process.

Internal rating system architecture

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

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

Thanks to the experience accumulated, the Montepaschi Group has decided to further invest in internal rating systems, starting, at the beginning of 2006, with the Basel II Project aimed at improving the existing internal procedures by adjusting them to the new prudential supervisory regulations for banks which came into force on January 1, 2007 with legislative decree no. 297 dated 27 December 2006. This project ended in 2008 with the authorisation from the bank of Italy to use advanced internal rating systems (AIRB) for PD and LGD with a



view to calculating capital requirements for portfolios of “non-financial companies” and “retail exposures” for Banca Monte dei Paschi di Siena and MPS Capital Services. Over the following years, in line with an internal overall ‘advancement plan’ and from a standpoint of roll-out, the MPS Group continued the process of refinement/ revision of its rating models for Corporate and Retail clients, leading it to obtain authorization by the Supervisory body (with decree of 25/08/2010) to use advanced internal rating based systems for the Group’s new entity, “Banca Antonveneta” (acquired in 2008 and merged into Banca MPS in April 2013) and for Montepaschi Leasing & Factoring and BiverBanca by ruling of 06.07.2012. The latter was subsequently sold by the Group to Cassa di Risparmio di Asti and as of the end of 2012 is no longer part of the MPS Group.

Internal rating system description

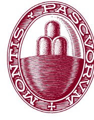
The development of the internal rating systems involved the adoption of strict and advanced statistical methodologies in compliance with the requirements set out in the regulations; at the same time, models were selected in such a way as to make results consistent with the historical experience of the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

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

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

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

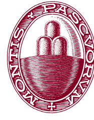
- for all regulatory portfolios subject to validation, the rating is calculated with a counterparty-based approach for each individual borrower, in line with the accepted management practice which provides for the assessment of credit risk, both in the disbursement and monitoring phases;
- ratings are based upon a Group logic: each individual counterparty is assigned a single rating at banking Group level, based on the data set pertaining to all lending banks within the AIRB scope; there is one LGD reference definition for retail banks while there are different reference definitions for product companies;



- LGD reflects the economic (and not only the accounting) loss incurred; for this reason, LGD estimates must also include the costs incurred for the recovery process and a time factor;
- the rating model segmentation, validated through statistical rules, 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 *Danger Rate* approach. With regard to counterparties whose exposures are administratively classified as Unlikely to Pay and Past due impaired exposures, the percentage of exposures entering Bad Loan 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 *Danger Rate* estimate;
- calculation of the final rating is differentiated by type of counterparty.

The credit process envisages a level of in-depth analysis proportional to counterparty risk: the assessment of loan disbursements is based on a complex multi-level structure for medium-large Corporate counterparties (SME and Large Corporate (LC) segments), whose exposure and concentration risks are higher, and a simplified structure for Small SMEs (companies with a turnover of up to EUR 10M) and retail clients;

- in line with this process, the final rating for SMEs and LC is the result of a number of different factors: statistical rating, qualitative rating, overrides and valuation of the 'economic group' which businesses belong to; for Small SMEs, SB and retail counterparties the rating is calculated only on the basis of statistical factors;
- the rating has a 12-month internal validity period and is usually reviewed on a yearly basis, except for rating reviews following well-structured codified practices or that are brought forward on client managers' request or following serious counterparty deterioration.



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

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

<table>
<tr><th>Rating class</th><th>PD</th><th>PD Range</th><th>PD range of subclasses</th></tr>
<tr><td>AAA</td><td>0.01%</td><td rowspan="5">da 0.00 a < 0.15</td><td rowspan="4">da 0.00 a < 0.10</td></tr>
<tr><td>AA1</td><td>0.03%</td></tr>
<tr><td>AA2</td><td>0.05%</td></tr>
<tr><td>AA3</td><td>0.09%</td></tr>
<tr><td>A1</td><td>0.13%</td><td>da 0.10 a < 0.15</td></tr>
<tr><td>A2</td><td>0.20%</td><td>da 0.15 a < 0.25</td><td></td></tr>
<tr><td>A3</td><td>0.30%</td><td rowspan="2">da 0.25 a < 0.50</td><td></td></tr>
<tr><td>B1</td><td>0.46%</td><td></td></tr>
<tr><td>B2</td><td>0.69%</td><td>da 0.50 a < 0.75</td><td></td></tr>
<tr><td>B3</td><td>1.05%</td><td rowspan="3">da 0.75 a < 2.50</td><td rowspan="2">da 0.75 a < 1.75</td></tr>
<tr><td>C1</td><td>1.59%</td></tr>
<tr><td>C2</td><td>2.42%</td><td>da 1.75 a < 2.50</td></tr>
<tr><td>C3</td><td>3.99%</td><td rowspan="3">da 2.50 a < 10.00</td><td>da 2.50 a < 5.00</td></tr>
<tr><td>D1</td><td>6.31%</td><td rowspan="2">da 5 a < 10.00</td></tr>
<tr><td>D2</td><td>9.95%</td></tr>
<tr><td>D3</td><td>16.03%</td><td rowspan="4">da 10.00 a < 100.00</td><td>da 10 a < 20.00</td></tr>
<tr><td>E1</td><td>22.12%</td><td>da 20 a < 30.00</td></tr>
<tr><td>E2</td><td>31.63%</td><td rowspan="2">da 30 a < 100.00</td></tr>
<tr><td>E3</td><td>45.00%</td></tr>
<tr><td>Default</td><td>100.00%</td><td>100.00% (default)</td><td></td></tr>
</table>

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

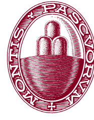
The rating system development and monitoring activities are functionally assigned to Risk Management. The estimation procedure is carried out according to an internal development protocol to make sure that estimation activities are transparent and visible for the internal controls and auditing departments.

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

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

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

- Corporates,
- Retail exposures.



Internal rating model for Corporates

PD models

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

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

The data source observation period for PD calibration is 11 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.

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**

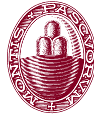
All information sources available are taken into account for the estimate of each rating model. A modular approach was adopted to maximise the prediction power of each information source, i.e. a (financial, internal trend, industry trend) standard module was estimated for each information source with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



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

- **Calibration**

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

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

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

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

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

It is calculated on the basis of the long-term default rate. 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.

- **Definition of default**

In 2020, the MPS Group took the necessary steps to implement the new definition of default (NEWDOD) provided for by the relevant regulations EBA/GL/2016/07 and EBA/RTS/2016/06. In particular, the new definition of default was introduced into the Group's processes as of 01 January 2021

and was incorporated into the internal IRB models during 2021 during the calibration of the models.

While confirming the definition of default in its macro aggregates of delayed payment and unlikeliness to pay of an obligor, the new regulations establish a more prudential framework, introducing a number of changes mainly in relation to:

- "absolute" and "relative" materiality thresholds for the identification of default:

  - absolute threshold:

    ✓ EUR 100 euro for Retail and EUR 500 for non- Retail, to be compared with the total amount past due and/or overrun by the debtor.

  - relative threshold:

    ✓ 1% of the exposure, to be compared with the ratio between the total amount past due and/or overrun and the total amount of all on-balance sheet exposures towards the same obligor

The default is triggered if the two thresholds are exceeded jointly for 90 continuous days. The above thresholds are calculated at Group level (i.e. past due/overrun at Group level and total exposure at Group level); for the above identification of the default, the compensatory effect from any margins available on other credit lines (e.g. loans still available loans) are not considered).

Additional rules for all categories of default have also been introduced:

- the alignment of a client's default classification across all companies of the banking Group (a customer cannot be classified as defaulting in one group company and not in another);
- new rules for the propagation/contagion of the default status (e.g. joint credit obligation (or "co-obligation"):

  ✓ if the joint credit obligation is in default, then the contagion effect is applied to the exposures of each co-obligor

  ✓ if all co-obligors are in default, the contagion effect automatically applies to the co-obligation exposures
- the possibility of exiting the default only if a minimum of three months has elapsed since the conditions for classifying the position as default no longer exist.

LGD models

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

MPSCS e Banca MPS L&F).

The Group uses a two-component model: the Bad Loans LGD and the LGD of default statuses other than Bad Loans. The relevant variables for the estimates include the geographic area, type of customers, loans, exposures transitioning to a default state, guarantees and their percentage of coverage, and, for non-performing statuses, the vintage.

The relevant regulations (EBA/GL/2017/16) have highlighted the importance of having appropriate LGD estimates for default exposures. The MPS Group has adopted the approach of indirectly estimating the in-default LGD as the sum of the Expected Loss Best Estimate plus an unexpected loss component obtained by inserting the Add-On of the downturn, to account for additional unexpected losses in the event of a recession in which there are lower recovery rates compared with the Long run LGD.

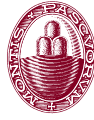
- **Loss Rate for non-Performing Positions**

The estimation of the LGD of Bad Loans is based on a workout approach, i.e. based on the historical evidence of sets of defaulting transactions that have similar characteristics. The database used to estimate the parameter includes all balance sheet and unsecured exposures relating to banks in the validation perimeter, which migrated to bad loan status from 01/01/2002 to 30/09/2018. Once the time horizon of the analysis has been established, the RDS (Reference Data Set) of the LGS estimate include:

- CLOSED Bad Loan positions;
- Bad Loan Positions defined as essentially CLOSED, i.e. positions that have been under Bad Loan status for a period exceeding the maximum workout period or that no longer have residual exposure;
- The remaining OPEN Bad Loan positions (Incomplete Workout) are included with an assessment of future recovery at the date of analysis.

As per the ECB's letter of 02/08/2018, the positions that fall within the Waiver perimeter, i.e. those that fall under the Valentine disposal and the Morgana and Merlino disposals excluding the 2017 flow, are not included in the estimated RDS. The disposals excluded from the Waiver have been incorporated into the estimation of Bad Loans-Incomplete Workout with a specific treatment of future recoveries.

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 Average Lending Rate, which represents the average value on the commercial customer portfolio calculated as the ratio between the gross interest for the year and the value of average volumes for the same year.

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

- **LGD for categories other than Bad Loans**

For the estimation of LGD for categories other than Bad Loans the starting point is the Danger Rate, i.e. the loss rate based on the calculation of the probability of transition from a performing status or from a non-performing status other than Bad Loan to Bad Loan status. Therefore, in order to estimate the Danger Rate, the probability of closure in an absorbing status conditional on the initial state of default is calculated, so as to associate each absorbing status to the observed write-off rate and, for new Bad Loan inflows, the estimated loss rate; for the performing status, the average is calculated of the LGDs of the default statuses weighted by the probability of first-time entry into each status. All positions included in the rating model calibration population that became defaulted within the period of analysis, i.e. from January 2009 to January 2018 with analysis of default observed until January 2020, were selected for this purpose.

- **Definition of default**

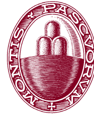
During the development of the LGD model, the definition of default used coincides with the one used in the calibration of the rating models: defaulting counterparties have been defined as a subset of customers with an exposure (credit line granted or drawn) which, in an ordinary condition in a given month of the year, shows at least one default event within the following twelve months (default event defined according to the new reference standard EBA/GL/2016/07 taking into account the management of multiple defaults in nine months.

- **LGD Downturn**

A downturn multiplier is estimated in order to incorporate any deterioration resulting from recessions in the business cycle in LGD estimates. The approach involves identifying recessionary periods by studying the time series of certain macroeconomic indices: the downturn impact is obtained from this analysis and applied to the LGD rate.

- **Margins of conservatism**

Finally, as required by the regulations, Margins of Conservativism (MOC) have been estimated and applied to the final LGDs. In particular, the regulations provide for the estimation of 3 categories of MOC according to their nature:



1. Category A (deficiencies in data and estimation methods);
2. Category B (changes in recovery processes);
3. Category C (general estimation errors)

Internal rating model for Retail exposures

PD models

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

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

- **Definition of default**

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

- **Development stages of the rating models**

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

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

LGD models

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

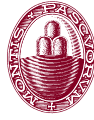
The comments on the estimate data base are only in relation to the retail segment and the *cure rate* estimate population was the calibration population of rating models.

Main changes to the internal rating system in recent years

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

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

In accordance with the *roll-out* plan, in 2013 the Montepaschi Group carried out an estimation of Rating models for the *Non-Banking Financial Institution* (NBFI)



segment. Furthermore, the Corporate and Retail models were calibrated by including data from the last few years (most representative of the current economic recession) in the time series.

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

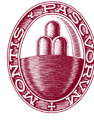
- firstly, regulatory provisions profoundly changed the framework of prudential supervision in order to strengthen capital requirements and incorporate the new Basel III standards;
- the economic cycle continued to be very severe, with further significant impacts on the level of risk at both system-wide level and on the MPS portfolio. The impact affected risk in the *performing* portfolio which continued to show very high default rates and a decline in its ability to recover non-performing positions;
- the regulatory exercise known as the «*Comprehensive Assessment*» and, in particular, the *Asset Quality Review* (AQR) revealed a significant impact for the Montepaschi Group;
- finally, there was a reduction in the closure of non-performing positions, which contributed to increasing the vintage of loans.

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

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

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

In 2015, as soon as the *default detection*

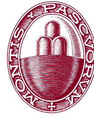


actions were concluded, the MPS Group recalibrated all of its Corporate and Retail rating models and re-estimated all LGD models in order to fully incorporate the AQR impacts. In particular, the time series used for PD and LGD estimations were shifted by one year so as to include the actual data relating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

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

Moreover, in the course of 2015, the supervisory *slotting criteria* approach was used to determine capital requirements for *Specialized Lending* transactions of more than 5 €mln. Finally, as provided for in the *roll-out* plan, the Montepaschi Group went ahead with the estimation of Rating models for the "Banks" segment.

In 2016, in line with the provisions of the regulatory framework (in particular with CRR regulation no. 575/2013, art. 179) on the basis of which 'institutions review their estimates whenever new information becomes available and in any case basis', the MPS Group continued to update and revise its internal rating system in order to reflect the events of 2015 and, in particular, it fully recalibrated all PD models, updating the *Anchor Points* (AP) and implementing the 2015 default rates. Finally, it should be noted that regulatory legislation is profoundly changing the framework of prudential supervisory rules in order to reinforce capital requirements and implement the new Basel III standards. In particular, in addition to the RTSs published by the EBA in 2016 relating to the definition of default to be adopted within estimates, in 2017 the '*Guidelines on PD estimation, LGD estimation and treatment of defaulted assets (EBAGL)*' were published, which call for a number of changes in the previously authorised AIRB models. In order to launch AIRB model updating activities in due time and clearly understand the *compliance* objectives scheduled by the Supervisory Authority for the coming years, the MPS Group has already begun its dialogue with the Supervisory Authority, proposing the new model for the calculation relating to the new definition of default. In addition, in the course of 2017, 2018 and 2019, the MPS



Group, along with the other large European banks authorised to use internal models to calculate the capital requirement for credit risk, continued its activities concerning the TRIM (*Targeted Review of Internal Models*). The TRIM is a multi-year project launched by the ECB in 2016 to evaluate 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 re-estimation and recalibration of PD and LGD models was carried out, which provided for a time series update as well as the implementation of the first implementation of recommendations communicated by the Supervisory Authority as part of the TRIM 2017 with respect to which GMPS has initiated the authorization process for discussion with the supervisory authority.

In the same year, the application of the AIRB's Slotting Criteria was extended to all specialised lending transactions (identified with a threshold of EUR 1 million) in order to determine capital requirements.

In 2020, the Group had already taken the steps required to adopt the New Definition of Default provided for by EBA/GL/2016/07 and EBA/RTS /2016/06. The new definition of default was then included in the Group's processes as of January 01, 2021 and has been incorporated into the internal IRB models as of the September 2021 reports (after supervisory approval, received in July 2021).

In Q4 2021, the MPS Group took steps to bring the PD and LGD models into line with the EBA/GL/2017/16 regulation in force from January 2022 (the so-called IRB repair programme) and resolve the findings that emerged from the previous TRIM and IMI inspections on the PD and/or LGD parameters, by submitting a request to the ECB for the authorisation of a material model change involving the complete resetting of all the models.

Use of Internal Models

Prior to authorisation from the bank of Italy enabling the Montepaschi Group to calculate capital absorptions according to the rules set out for the advanced internal rating systems, the Group used the parameters underlying the calculation of *Risk Weighted Assets* also for other operational and internal management purposes. The basic principle called for the use of Basel 2 input factors –as much in line with operating requirements as possible- even though, for obvious reasons, operational practices naturally diverge from supervisory standards, with some methodological fine-tunings and adjustments required for

internal purposes and calculation systems. in particular, “across-the board” parameters used for both “supervisory reporting” and “operational” practices are in relation to the Probabilities of default (PD) resulting from internal rating systems and the loss rates on the “impaired” portfolio (LGD). The latter provide the basis of calculation for different systems of measurement and monitoring, and specifically for:

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

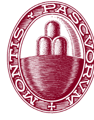
with the latest updates.

- The parameters which feed the calculation model for the **risk-adjusted pricing process** are the same as those used for the loan portfolio model, even though with some extensions implicit in the pricing model. The pricing model which price-marks different types of loans with different maturities, requires input not only from the annual Probability of default but also from marginal, *forward* and multi-period Pds. For these reasons, the Montepaschi Group has developed specific calculation methodologies for these default probabilities, all in compliance with the annual PD resulting from the validated rating systems. Similarly, LGD calculation is based on the same criteria as those used and mentioned above for the loan Portfolio model, though not taking account of economic downturns.

- In relation to **credit process monitoring**, the following should be noted:

  - processes of loan disbursement to customers included in the AIRB scope of application have been completely ‘reengineered’ with the Electronic Credit Facility record software. The Montepaschi Group’s counterparty rating is the result of a process which evaluates - in a transparent, structured and consistent manner - all the economic financial, ‘behavioural’ and qualitative information relative to customers who generate credit risk exposures. The Official rating thus determined has ordinary validity up to the twelfth following month and shall be reviewed by the end of that month. However, the rating review in the monitoring process may be prompted at an earlier date during the validity period if ongoing, major monthly statistical Pd variations – exceeding specific *cut-offs* – are intercepted. The loan disbursement system is organised into several ‘paths’, depending on the type of customer and transaction requested, which envisage the possibility of executing the process of assigning a rating to each counterparty and do not allow for any decision-making powers to be exercised in the absence of a valid rating;

  - credit is monitored by using an *early management* system which uses a binding and non-binding *early detection* trigger as well as a “performance risk indicator”, known as IRA (it.: “Indicatore di Rischio Andamentale”) which is based on internal and external information regarding the customer’s trends and behaviours. When given PRI thresholds are exceeded, the position is intercepted within a process



whereby the operator is required to comply with certain activities in order to address the irregularities identified;

- the Simplified renewal process is used for low-risk situations and lower amounts. This process is applied to all counterparties with credit facilities subject to revision, which have matured or will mature in the month of reference;
- the principle underlying decision-making powers provides for levels to be assigned on the basis of individual counterparty ratings, the amount of the credit facility requested, the level of risk measured for the Group to which the counterparty belongs, the type of credit facility requested or guarantees required and, finally, the nature of the borrower;
- on the basis of these levels, the system for assigning powers identifies a nominal amount for each risk aggregate: power of approval is assigned to the decision-making bodies, making reference to the combination of rating class and type of loan granted according to the principle of delegating the decision-making powers for the worst ratings to the uppermost levels. Exception to this rule is made for the board of directors, which has the highest level of decision-making powers, and for the levels of approval assigned to corporate decision-making bodies.

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

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

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

- legal certainty;
- enforceability of Guarantee against third

parties;

- timely liquidation;
- compliance with organisational requirements.

Control Management model on Internal Rating System

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

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

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

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

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

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

level control maintenance and monitoring.

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

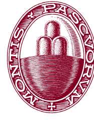
The Internal Validation Function prepares the Montepaschi Group's "Annual internal rating System Validation report" on a yearly basis, expressing an opinion regarding the positioning of the Group's SRI with respect to the regulatory requirements as well as its orderly functioning, predictive capacity and the overall performance of the system itself. The opinion expressed by the Internal Validation Function is then examined by the Corporate Control Functions Coordination Committee, also for the purpose of sharing and agreeing on any remedial actions required. The "Annual Validation Report" is subsequently submitted for approval by the Parent Company's Board of Directors once submitted for examination of the Risk Committee and having heard the opinion of the Board of Statutory Auditors. Moreover, the Chief Audit Executive Division (hereinafter also CAED) is assigned with the task of assessing the efficiency of the overall structure of controls for the rating system (responsible for review controls).

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

Internal Rating System Validation Process

Responsibility for validating the SRI is assigned to the head of the Internal Validation Function identified as of 27 June 2021 as the head pro tempore of the Validation and Risk Systems Service (VRSS) in carrying out operational activities that are required for validation.

Following the reorganisation of the Parent Company which came into force on that date, this unit took over the functions of the former Risk Systems Validation Service, which had been set up in February 2014 with the specific task of validating certain risk measurement models – regulatory and non-regulatory – by constantly verifying the reliability of results obtained and maintaining alignment with regulatory requirements.



The results of these controls are documented, formalised and transmitted directly to the structures concerned as well as to the Chief Audit Executive Division. Once a year these results are included in the "Annual Validation Report". 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; the main areas analysed are:
  - 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.

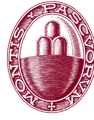
Process of Internal Review of the Internal Rating System

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.

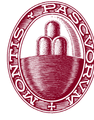
In particular, the responsibilities assigned to the internal audit unit by the Supervisory



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.



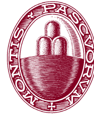
EU CR6-A: Scope of the use of IRB and SA approaches

		Exposure value as defined in Article 166 CRR for exposures subject to IRB approach	Total exposure value for exposures subject to the Standardised approach and to the IRB approach	Percentage of total exposure value subject to the permanent partial use of the SA (%)	Percentage of total exposure value subject to a roll-out plan (%)	Percentage of total exposure value subject to IRB Approach (%)
		a	b	c	d	e
1	Central governments or central banks	34,342,174	34,308,031	100.0000%	0.0000%	0.0000%
1,1	*Of which Regional governments or local authorities*		-	*0.0000%*	*0.0000%*	*0.0000%*
1,2	*Of which Public sector entities*		-	*0.0000%*	*0.0000%*	*0.0000%*
2	Institutions	4,690,340	4,824,152	100.0000%	0.0000%	0.0000%
3	Corporates	30,061,043	30,335,248	10.7160%	1.7700%	87.5140%
3,1	*Of which Corporates - Specialised lending, excluding slotting approach*		-	*0.0000%*	*0.0000%*	*0.0000%*
3,2	*Of which Corporates - Specialised lending under slotting approach*		*1,487,086*	*0.0000%*	*0.0000%*	*100.0000%*
4	Retail	44,732,835	44,267,433	0.3000%	1.1970%	98.5030%
4,1	*of which Retail – Secured by real estate SMEs*		*4,142,900*	*0.0000%*	*0.9570%*	*99.0430%*
4,2	*of which Retail – Secured by real estate non-SMEs*		*28,937,830*	*0.0180%*	*0.1530%*	*99.8300%*
4,3	*of which Retail – Qualifying revolving*		*397,619*	*22.1130%*	*55.9660%*	*21.9210%*
4,4	*of which Retail – Other SMEs*		*9,652,434*	*0.2761%*	*2.0780%*	*97.6458%*
4,5	*of which Retail – Other non-SMEs*		*1,136,650*	*1.1420%*	*2.0110%*	*96.8460%*
5	Equity	819,615	819,614	100.0000%	0.0000%	0.0000%
6	Other non-credit obligation assets	5,373,701	5,370,875	100.0000%	0.0000%	0.0000%
7	**Total as at 31/12/2021**	**120,019,707**	**119,925,354**	**48.0480%**	**0.8050%**	**51.1470%**

The comparison between the exposure value as defined in Article 166 for IRB exposures and the exposure value for the same exposures according to Article 429(4) of the CRR does not show any significant differences. It is noted that the GMPS has effectively completed its roll-out plan (less than 1% of the portfolio is still to be authorised to use the internal models). The portfolio of retail exposures is almost completely covered by IRB models and coverage will be practically complete with the extension of the IRB system to the subsidiary WIDIBA. With regard to the corporate portfolio, companies with foreign registered offices and non-banking financial institutions that are within the Permanent Partial Use portfolio are not covered by IRB models.

EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Exposures to or secured by corporates - SME

Corporates - SME AIRB	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	352,030	1,026,825	-	433,451	0.1030%	1,126	35.9670%	2	67,079	15.4755%	160	-417
	0.00 to <0.10	169,001	600,557	-	213,960	0.0760%	611	36.4130%	2	28,492	13.3165%	59	-248
	0.10 to <0.15	183,029	426,268	-	219,490	0.1300%	515	35.5310%	2	38,587	17.5801%	101	-169
	0.15 to <0.25	306,346	642,885	-	361,425	0.2000%	813	34.1510%	2	72,227	19.9841%	247	-460
	0.25 to <0.50	1,204,589	1,626,545	-	1,347,786	0.3780%	2,652	32.1050%	2	397,705	29.5080%	1,644	-2,232
	0.50 to <0.75	756,585	702,037	-	814,921	0.6900%	1,673	31.7390%	2	307,561	37.7413%	1,785	-2,737
	0.75 to <2.50	2,934,642	1,654,249	-	3,114,890	1.6050%	4,892	31.3120%	3	1,585,161	50.8898%	15,535	-18,724
	0.75 to <1.75	2,082,074	1,323,376	-	2,222,732	1.2780%	3,507	31.7180%	2	1,085,354	48.8297%	8,993	-11,795
	1.75 to <2.5	852,568	330,873	-	892,158	2.4200%	1,385	30.3000%	3	499,806	56.0222%	6,542	-6,930
	2.50 to <10.00	2,102,791	520,261	-	2,199,808	6.6690%	3,074	27.8510%	3	1,531,506	69.6200%	40,151	-61,379
	2.5 to <5	800,805	249,739	-	835,046	3.9900%	1,467	28.9870%	3	514,600	61.6253%	9,658	-8,522
	5 to <10	1,301,986	270,523	-	1,364,762	8.3080%	1,607	27.1560%	3	1,016,906	74.5116%	30,493	-52,857
	10.00 to <100.00	543,362	62,517	-	560,372	23.6650%	521	24.8660%	4	540,545	96.4619%	33,555	-40,957
	10 to <20	192,935	31,765	-	197,250	16.0300%	342	27.4800%	3	190,092	96.3710%	8,689	-12,186
	20 to <30	239,924	20,987	-	248,230	22.1200%	105	20.4580%	5	206,955	83.3723%	11,233	-15,802
	30.00 to <100.00	110,503	9,764	-	114,892	40.1120%	74	29.8990%	4	143,498	124.8989%	13,633	-12,969
	100.00 (Default)	1,404,446	129,350	-	1,438,702	100.0000%	1,058	59.0210%	2	844,085	58.6699%	794,891	-829,731
Total		**9,604,791**	**6,364,668**	**-**	**10,271,354**	**17.3288%**	**15,809**	**34.5345%**	**3**	**5,345,869**	**52.0464%**	**887,968**	**-956,637**

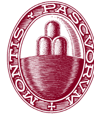


EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Exposures to or secured by corporates – Other companies

Corporates - Other AIRB	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	398,001	1,943,271	-	649,683	0.1060%	329	39.1480%	2	163,723	25.2005%	268	-1,466
	0.00 to <0.10	228,977	975,681	-	365,437	0.0860%	182	39.1030%	3	91,413	25.0148%	123	-457
	0.10 to <0.15	169,024	967,590	-	284,246	0.1300%	147	39.2070%	1	72,310	25.4392%	145	-1,009
	0.15 to <0.25	299,091	1,067,111	-	403,732	0.2000%	214	37.9550%	2	132,229	32.7516%	306	-523
	0.25 to <0.50	1,446,200	3,934,491	-	2,091,027	0.3950%	928	38.8340%	2	1,074,232	51.3734%	3,212	-5,344
	0.50 to <0.75	791,400	1,680,269	-	1,020,376	0.6900%	483	38.7330%	1	637,024	62.4303%	2,727	-2,017
	0.75 to <2.50	2,383,223	3,634,509	-	3,001,544	1.4970%	1,198	37.7170%	1	2,428,573	80.9108%	16,901	-15,338
	0.75 to <1.75	1,770,617	3,004,786	-	2,263,800	1.1970%	921	37.9530%	1	1,733,456	76.5729%	10,297	-8,006
	1.75 to <2.5	612,607	629,723	-	737,745	2.4200%	277	36.9920%	1	695,117	94.2219%	6,604	-7,332
	2.50 to <10.00	483,354	570,184	-	642,525	5.4350%	356	38.2700%	1	816,300	127.0458%	13,385	-15,594
	2.5 to <5	251,099	314,085	-	332,248	3.9900%	180	38.0760%	1	372,198	112.0243%	5,048	-3,653
	5 to <10	232,255	256,100	-	310,277	6.9810%	176	38.4780%	2	444,102	143.1310%	8,338	-11,940
	10.00 to <100.00	51,457	50,360	-	62,307	19.4510%	57	35.9470%	2	112,713	180.9001%	4,403	-2,915
	10 to <20	40,672	20,934	-	41,360	16.0300%	37	33.9150%	2	69,157	167.2069%	2,249	-1,621
	20 to <30	6,547	29,266	-	16,587	22.1200%	9	40.9550%	1	36,009	217.0958%	1,503	-987
	30.00 to <100.00	4,238	159	-	4,360	41.7530%	11	36.1770%	3	7,547	173.0984%	652	-307
	100.00 (Default)	280,601	302,234	-	371,961	100.0000%	224	61.1920%	1	97,762	26.2829%	222,543	-235,663
Total		**6,133,328**	**13,182,430**	**-**	**8,243,155**	**5.8319%**	**3,789**	**39.3396%**	**1**	**5,462,556**	**66.2678%**	**263,744**	**-278,858**

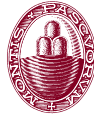
The following table shows a breakdown by PD band with quantitative details for the advanced IRB approach of the Portfolio "Retail Exposures" divided by regulatory asset class:

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



EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Retail exposures secured by real estate - SME

Retail - Secured by real estate - SME	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	42,315	169	-	42,391	0.1090%	276	16.5690%	-	1,445	3.4086%	8	-33
	0.00 to <0.10	14,871	2	-	14,872	0.0710%	117	16.0460%	-	351	2.3594%	2	-22
	0.10 to <0.15	27,443	167	-	27,518	0.1300%	159	16.8510%	-	1,094	3.9757%	6	-11
	0.15 to <0.25	51,212	23	-	51,212	0.2000%	364	16.0860%	-	2,707	5.2866%	16	-33
	0.25 to <0.50	333,843	4,950	-	335,580	0.3910%	2,224	15.9810%	-	28,849	8.5967%	210	-531
	0.50 to <0.75	343,108	630	-	343,312	0.6900%	2,620	15.9000%	-	43,994	12.8145%	377	-459
	0.75 to <2.50	1,432,718	13,260	-	1,437,719	1.7160%	10,639	16.5260%	-	346,065	24.0704%	4,104	-5,113
	0.75 to <1.75	920,069	8,149	-	923,154	1.3230%	6,763	16.2820%	-	186,468	20.1990%	1,992	-2,538
	1.75 to <2.5	512,649	5,111	-	514,565	2.4200%	3,876	16.9660%	-	159,598	31.0160%	2,113	-2,575
	2.50 to <10.00	1,376,391	14,845	-	1,382,814	6.0170%	9,990	17.7690%	-	723,786	52.3415%	14,734	-26,516
	2.5 to <5	667,940	11,753	-	673,322	3.9900%	4,998	17.5460%	-	287,984	42.7707%	4,714	-5,193
	5 to <10	708,451	3,092	-	709,492	7.9400%	4,992	17.9810%	-	435,801	61.4244%	10,020	-21,322
	10.00 to <100.00	227,797	1,080	-	228,233	21.7980%	1,268	18.3260%	-	191,969	84.1110%	9,103	-14,478
	10 to <20	122,041	927	-	122,477	16.0300%	727	18.4300%	-	100,807	82.3070%	3,618	-6,900
	20 to <30	61,161	140	-	61,161	22.1200%	325	18.0520%	-	52,617	86.0304%	2,442	-4,022
	30.00 to <100.00	44,595	14	-	44,595	37.1960%	216	18.4190%	-	38,545	86.4330%	3,043	-3,556
	100.00 (Default)	405,130	3,617	-	405,514	100.0000%	1,880	41.6320%	-	171,023	42.1742%	162,284	-160,870
Total		**4,212,513**	**38,575**	**1**	**4,226,776**	**13.4138%**	**29,261**	**19.3395%**	**-**	**1,509,837**	**35.7208%**	**190,837**	**-208,032**



EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Retail exposures secured by real estate – Non-SME

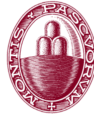
Retail - Secured by by real estate – Non-SME	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	3,039,517	3,689	-	3,041,362	0.1300%	36,131	10.3780%	-	97,121	3.1933%	410	-663
	0.00 to <0.10	-	-	-	-	0.0000%	-	0.0000%	-	-	0.0000%	-	-
	0.10 to <0.15	3,039,517	3,689	-	3,041,362	0.1300%	36,131	10.3780%	-	97,121	3.1933%	410	-663
	0.15 to <0.25	3,498,705	2,484	-	3,499,943	0.2000%	42,422	10.7440%	-	159,954	4.5702%	752	-985
	0.25 to <0.50	7,747,686	1,606	-	7,748,488	0.3760%	97,392	10.6000%	-	549,989	7.0980%	3,079	-3,787
	0.50 to <0.75	3,635,944	614	-	3,636,184	0.6900%	48,176	10.3840%	-	390,333	10.7347%	2,605	-4,663
	0.75 to <2.50	7,309,010	2,706	-	7,310,320	1.4940%	99,964	10.0820%	-	1,251,505	17.1197%	10,971	-26,221
	0.75 to <1.75	6,234,293	2,302	-	6,235,402	1.3350%	83,809	10.0810%	-	999,531	16.0299%	8,349	-16,093
	1.75 to <2.5	1,074,716	404	-	1,074,917	2.4200%	16,155	10.0820%	-	251,974	23.4412%	2,623	-10,128
	2.50 to <10.00	1,111,459	475	-	1,111,637	5.7230%	15,748	10.2670%	-	415,725	37.3976%	6,563	-28,903
	2.5 to <5	613,684	113	-	613,689	3.9900%	9,146	10.1960%	-	193,758	31.5727%	2,497	-11,534
	5 to <10	497,775	362	-	497,948	7.8580%	6,602	10.3520%	-	221,967	44.5764%	4,066	-17,369
	10.00 to <100.00	311,107	343	-	311,117	21.5880%	3,654	10.4170%	-	188,523	60.5957%	6,993	-14,588
	10 to <20	179,313	20	-	179,323	16.0300%	2,128	10.3500%	-	105,034	58.5724%	2,975	-8,240
	20 to <30	67,345	-	-	67,345	22.1200%	825	10.6910%	-	43,678	64.8573%	1,593	-3,072
	30.00 to <100.00	64,449	323	-	64,449	36.4950%	701	10.3160%	-	39,812	61.7723%	2,425	-3,277
	100.00 (Default)	707,054	2,462	-	707,055	100.0000%	8,042	31.4380%	-	232,236	32.8455%	211,614	-189,217
Total		**27,360,481**	**14,379**	**-**	**27,366,104**	**3.6989%**	**351,529**	**10.9495%**	**-**	**3,285,386**	**12.0053%**	**242,989**	**-269,027**

EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Retail Exposures - Qualifying revolving

Retail - Qualifying revolving - AIRB	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	17,599	10,123	-	17,599	0.1300%	25,653	35.4770%	-	495	2.8146%	8	-23
	0.00 to <0.10	-	-	-	-	0.0000%	-	0.0000%	-	-	0.0000%	-	-
	0.10 to <0.15	17,599	10,123	-	17,599	0.1300%	25,653	35.4770%	-	495	2.8146%	8	-23
	0.15 to <0.25	4,302	4,698	-	4,302	0.2000%	6,361	28.6330%	-	139	3.2380%	2	-3
	0.25 to <0.50	15,361	15,639	-	15,361	0.3850%	22,110	29.0670%	-	852	5.5460%	17	-14
	0.50 to <0.75	9,725	10,170	-	9,725	0.6900%	12,927	32.2810%	-	956	9.8332%	22	-18
	0.75 to <2.50	20,496	14,932	-	20,496	1.6240%	24,447	34.7340%	-	4,142	20.2098%	117	-106
	0.75 to <1.75	14,566	11,510	-	14,566	1.3000%	17,599	34.0200%	-	2,450	16.8222%	65	-62
	1.75 to <2.5	5,929	3,421	-	5,929	2.4200%	6,848	36.4870%	-	1,692	28.5321%	52	-44
	2.50 to <10.00	13,391	4,149	-	13,391	5.7060%	15,158	37.4690%	-	6,943	51.8502%	288	-320
	2.5 to <5	6,158	2,587	-	6,158	3.9900%	6,864	36.6440%	-	2,503	40.6384%	90	-82
	5 to <10	7,232	1,562	-	7,232	7.1680%	8,294	38.1720%	-	4,441	61.3970%	198	-238
	10.00 to <100.00	693	314	-	693	20.0270%	849	34.7660%	-	649	93.6309%	49	-46
	10 to <20	457	157	-	457	16.0300%	514	34.4430%	-	398	86.9796%	25	-26
	20 to <30	143	113	-	143	22.1200%	194	35.2010%	-	145	101.6424%	11	-12
	30.00 to <100.00	93	45	-	93	36.5060%	141	35.6860%	-	106	114.0558%	12	-9
	100.00 (Default)	275	233	-	275	100.0000%	422	75.8100%	-	517	188.1187%	167	-173
Total		**81,840**	**60,257**	**-**	**81,840**	**2.0387%**	**107,927**	**33.8038%**	**-**	**14,694**	**17.9548%**	**670**	**-703**

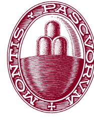
EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Retail Exposures other - SME

Retail - Other SME - AIRB	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	111,883	451,583	-	132,444	0.1040%	3,278	39.9700%	-	10,755	8.1201%	55	-172
	0.00 to <0.10	51,461	225,201	-	60,109	0.0730%	1,589	40.0090%	-	3,758	6.2518%	17	-83
	0.10 to <0.15	60,422	226,382	-	72,335	0.1300%	1,689	39.9380%	-	6,997	9.6725%	38	-89
	0.15 to <0.25	118,852	361,348	-	137,363	0.2000%	3,590	40.1000%	-	18,052	13.1419%	110	-161
	0.25 to <0.50	459,754	1,518,341	-	515,838	0.3850%	24,548	40.0050%	-	102,340	19.8395%	796	-910
	0.50 to <0.75	364,668	616,327	-	404,221	0.6900%	14,099	39.9850%	-	111,852	27.6711%	1,115	-918
	0.75 to <2.50	1,191,305	1,412,208	-	1,299,665	1.6810%	51,397	40.1230%	-	506,468	38.9691%	8,774	-5,862
	0.75 to <1.75	788,909	1,016,255	-	860,510	1.3050%	33,566	40.0440%	-	312,834	36.3545%	4,493	-3,006
	1.75 to <2.5	402,396	395,953	-	439,155	2.4200%	17,831	40.2790%	-	193,634	44.0923%	4,281	-2,856
	2.50 to <10.00	1,145,788	883,686	-	1,239,137	5.8880%	48,929	40.1950%	-	614,680	49.6054%	29,318	-25,749
	2.5 to <5	556,518	491,598	-	605,863	3.9900%	24,345	40.1290%	-	286,042	47.2124%	9,701	-6,458
	5 to <10	589,270	392,089	-	633,274	7.7040%	24,584	40.2580%	-	328,637	51.8950%	19,617	-19,291
	10.00 to <100.00	175,309	65,641	-	184,259	20.3880%	10,974	39.7740%	-	129,585	70.3278%	14,934	-13,286
	10 to <20	110,574	46,818	-	116,206	16.0300%	7,881	39.9270%	-	76,460	65.7966%	7,438	-7,163
	20 to <30	38,846	12,700	-	40,896	22.1200%	1,556	39.5610%	-	30,425	74.3970%	3,579	-3,232
	30.00 to <100.00	25,890	6,123	-	27,157	36.4320%	1,537	39.4440%	-	22,700	83.5892%	3,918	-2,891
	100.00 (Default)	614,834	107,840	-	652,667	100.0000%	17,122	76.2550%	-	267,773	41.0275%	483,793	-443,177
Total		**4,182,393**	**5,416,975**	**-**	**4,565,595**	**17.3083%**	**173,937**	**45.2630%**	**-**	**1,761,505**	**38.5821%**	**538,895**	**-490,236**



EU CR6-B: IRB approach – Credit risk exposures by exposure class and PD range: Retail Exposures other – Non-SME

Retail - Other non-SME - AIRB	PD scale	On-balance sheet exposures	Off-balance-sheet exposures pre-CCF	Exposure weighted average CCF	Exposure post CCF and post CRM	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity (years)	Risk weighted exposure amount after supporting factors	Density of risk weighted exposure amount	Expected loss amount	Value adjustments and provisions
	a	b	c	d	e	f	g	h	i	j	h	l	m
	0.00 to <0.15	20,424	396,840	0	25,373	0.1300%	75,573	20.1790%	-	1,628	6.4153%	7	-114
	0.00 to <0.10	-	-	-	-	0.0000%	-	0.0000%	-	-	0.0000%	-	-
	0.10 to <0.15	20,424	396,840	-	25,373	0.1300%	75,573	20.1790%	-	1,628	6.4153%	7	-114
	0.15 to <0.25	28,959	61,618	-	36,032	0.2000%	7,439	21.8900%	-	3,386	9.3979%	16	-23
	0.25 to <0.50	108,084	195,018	-	129,695	0.3850%	24,025	23.4620%	-	19,761	15.2364%	117	-115
	0.50 to <0.75	90,134	144,854	-	108,591	0.6900%	20,432	23.6830%	-	23,302	21.4585%	177	-171
	0.75 to <2.50	318,388	353,947	-	350,477	1.7090%	56,417	25.9040%	-	115,765	33.0306%	1,561	-1,539
	0.75 to <1.75	200,061	252,651	-	225,904	1.3170%	38,440	25.3100%	-	67,858	30.0383%	748	-754
	1.75 to <2.5	118,327	101,295	-	124,573	2.4200%	17,977	26.9790%	-	47,907	38.4570%	813	-785
	2.50 to <10.00	249,171	141,003	-	266,032	5.5670%	72,883	29.2770%	-	123,867	46.5607%	4,358	-7,190
	2.5 to <5	130,994	97,454	-	145,319	3.9900%	20,685	28.3470%	-	63,067	43.3990%	1,644	-2,038
	5 to <10	118,177	43,548	-	120,713	7.4670%	52,198	30.3970%	-	60,799	50.3669%	2,715	-5,152
	10.00 to <100.00	33,713	4,353	-	34,113	22.5720%	6,584	29.1840%	-	23,780	69.7089%	2,264	-3,033
	10 to <20	13,775	2,802	-	14,092	16.0300%	2,650	30.3930%	-	9,203	65.3012%	687	-1,020
	20 to <30	13,601	852	-	13,621	22.1200%	1,611	26.6700%	-	8,930	65.5613%	804	-1,294
	30.00 to <100.00	6,337	699	-	6,399	37.9400%	2,323	31.8770%	-	5,647	88.2440%	774	-718
	100.00 (Default)	141,153	6,891	-	142,260	100.0000%	23,141	72.7980%	-	87,730	61.6685%	98,035	-99,800
Total		**990,026**	**1,304,524**	**-**	**1,092,574**	**15.7530%**	**286,494**	**32.1577%**	**-**	**399,218**	**36.5392%**	**106,536**	**-111,984**



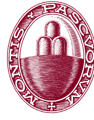
EU CR7-A: IRB approach – Disclosure of the extent of the use of CRM techniques

	A-IRB	Total exposures	Credit risk Mitigation techniques											Credit risk Mitigation methods in the calculation of RWEAs	
			Funded credit Protection (FCP)									Unfunded credit Protection (UFCP)		RWEA without substitution effects (reduction effects only)	RWEA with substitution effects (both reduction and sustitution effects)
			Part of exposures covered by Financial Collaterals (%)	Part of exposures covered by Other eligible collaterals (%)	Part of exposures covered by Immovable property Collaterals (%)	Part of exposures covered by Receivables (%)	Part of exposures covered by Other physical collateral (%)	Part of exposures covered by Other funded credit protection (%)	Part of exposures covered by Cash on deposit (%)	Part of exposures covered by Life insurance policies (%)	Part of exposures covered by Instruments held by a third party (%)	Part of exposures covered by Guarantees (%)	Part of exposures covered by Credit Derivatives (%)		
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
1	Central governments and central banks	-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		-
2	Institutions	-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		-
3	Corporates	20,032,121	0.55%	19.01%	19.01%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	11.86%	0.00%		11,986,299
3,1	*Of which Corporates – SMEs*	*10,271,354*	*0.86%*	*32.49%*	*32.49%*	*0.00%*	*0.00%*	*0.01%*	*0.01%*	*0.00%*	*0.00%*	*11.33%*	*0.00%*		*5,345,869*
3,2	*Of which Corporates – Specialised lending*	*1,517,612*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*		*1,177,874*
3,3	*Of which Corporates – Other*	*8,243,155*	*0.26%*	*5.71%*	*5.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*14.70%*	*0.00%*		*5,462,556*
4	Retail	37,333,104	0.44%	83.22%	83.22%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	2.89%	0.00%		6,970,641
4,1	*Of which Retail – Immovable property SMEs*	*4,226,776*	*0.06%*	*86.73%*	*86.73%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.76%*	*0.00%*		*1,509,837*
4,2	*Of which Retail – Immovable property non-SMEs*	*27,366,104*	*0.01%*	*99.89%*	*99.89%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*		*3,285,386*
4,3	*Of which Retail – Qualifying revolving*	*81,840*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*		*14,694*
4,4	*Of which Retail – Other SMEs*	*4,565,810*	*2.38%*	*0.90%*	*0.90%*	*0.00%*	*0.00%*	*0.04%*	*0.04%*	*0.00%*	*0.00%*	*22.38%*	*0.00%*		*1,761,505*
4,5	*Of which Retail – Other non-SMEs*	*1,092,574*	*4.52%*	*2.43%*	*2.43%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.15%*	*0.00%*		*399,218*
5	**Total**	**57,365,226**	**0.48%**	**60.80%**	**60.80%**	**0.00%**	**0.00%**	**0.01%**	**0.01%**	**0.00%**	**0.00%**	**6.02%**	**0.00%**		**18,956,940**

EU CR8: RWEA flow statements of credit risk exposures under the IRB approach

		RWA
1	**Risk weighted exposure amount as at the end of the previous reporting period**	**19,235,777**
2	Asset size	-331,156
3	Asset quality	431,138
4	Model updates	-
5	Methodology and policy	-
6	Acquisitions and disposals	-54,836
7	Foreign exchange movements	-
8	Other	-
9	**Risk weighted exposure amount as at the end of the reporting period**	**19,280,923**

The information in this template includes counterparty credit risk (CCR) exposures and specialised lending.

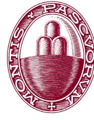


EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Corporate - PMI

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Corporate - PMI							
	0.00 to <0.15	354	-	0.0000%	0.1030%	0.0976%	0.1878%
	0.00 to <0.10	138	-	0.0000%	0.0760%	0.0701%	0.5030%
	0.10 to <0.15	216	-	0.0000%	0.1300%	0.1300%	0.0000%
	0.15 to <0.25	395	-	0.0000%	0.2000%	0.2000%	0.2731%
	0.25 to <0.50	1,857	8	0.4308%	0.3780%	0.3768%	0.3491%
	0.50 to <0.75	1,261	1	0.0793%	0.6900%	0.6900%	0.4257%
	0.75 to <2.50	4,526	37	0.8175%	1.6050%	1.6205%	1.0283%
	0.75 to <1.75	2,913	14	0.4806%	1.2780%	1.2953%	0.8518%
	1.75 to <2.5	1,613	23	1.4259%	2.4200%	2.4200%	1.3234%
	2.50 to <10.00	3,792	122	3.2173%	6.6690%	5.9517%	3.5222%
	2.5 to <5	1,703	31	1.8203%	3.9900%	3.9900%	2.2182%
	5 to <10	2,089	91	4.3562%	8.3080%	7.7452%	4.3992%
	10.00 to <100.00	855	124	14.5029%	23.6650%	20.2220%	16.0733%
	10 to <20	547	48	8.7751%	16.0300%	16.0300%	10.3234%
	20 to <30	161	32	19.8758%	22.1200%	22.1200%	19.3146%
	30.00 to <100.00	147	44	29.9320%	40.1120%	36.6944%	31.5485%
	100.00 (Default)	1,021	-	0.0000%	100.0000%	0.0000%	0.0000%

The number of borrowers subject to short-term contracts (but not only) accounts for just under 30% of the total number of customers; this percentage rises to around 30-35% in the rating classes with a risk level between 0.5% and 2.5%.

The analysis of long-term average rates is conducted on the basis of the default rates observed on non-overlapping annual cohorts, which therefore excludes any distortionary effects on the indicator arising from the repeated use of the same information on multiple cohorts. The comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.



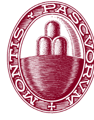
EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Corporate - Other

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Corporates - Other							
	0.00 to <0.15	77	-	0.0000%	0.1060%	0.0978%	0.0000%
	0.00 to <0.10	24	-	0.0000%	0.0860%	0.0726%	0.0000%
	0.10 to <0.15	53	-	0.0000%	0.1300%	0.1300%	0.0000%
	0.15 to <0.25	126	-	0.0000%	0.2000%	0.2000%	0.0000%
	0.25 to <0.50	530	2	0.3774%	0.3950%	0.3713%	0.3692%
	0.50 to <0.75	388	-	0.0000%	0.6900%	0.6900%	0.4126%
	0.75 to <2.50	1.430	7	0.4895%	1.4970%	1.5259%	1.0351%
	0.75 to <1.75	985	4	0.4061%	1.1970%	1.2587%	0.6698%
	1.75 to <2.5	445	3	0.6742%	2.4200%	2.4200%	1.7902%
	2.50 to <10.00	593	17	2.8668%	5.4350%	5.7661%	3.3625%
	2.5 to <5	279	5	1.7921%	3.9900%	3.9900%	2.3207%
	5 to <10	314	12	3.8217%	6.9810%	7.6381%	4.2206%
	10.00 to <100.00	122	5	4.0984%	19.4510%	22.1804%	12.2067%
	10 to <20	82	2	2.4390%	16.0300%	16.0300%	9.6298%
	20 to <30	29	1	3.4483%	22.1200%	22.1200%	12.6224%
	30.00 to <100.00	11	2	18.1818%	41.7530%	40.1382%	23.6818%
	100.00 (Default)	252	-	0.0000%	100.0000%	0.0000%	0.0000%

The number of borrowers subject to short-term contracts (but not only) accounts for approximately 35% of the total number of customers; this percentage rises to around 50% in the rating classes with a risk level between approximately 0.75% and 5%.

The analysis of long-term average rates is conducted on the basis of the default rates observed on non-overlapping annual cohorts, which therefore excludes any distortionary effects on the indicator arising from the repeated use of the same information on multiple cohorts.

The comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.



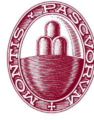
EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Retail - Secured by immovable property SME

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Retail - Secured by immovable property SME - AIRB	0.00 to <0.15	57	-	0.0000%	0.1090%	0.1078%	0.4444%
	0.00 to <0.10	22	-	0.0000%	0.0710%	0.0760%	0.0000%
	0.10 to <0.15	35	-	0.0000%	0.1300%	0.1300%	0.6250%
	0.15 to <0.25	114	-	0.0000%	0.2000%	0.2000%	0.2151%
	0.25 to <0.50	987	1	0.1013%	0.3910%	0.3952%	0.3649%
	0.50 to <0.75	1,504	7	0.4654%	0.6900%	0.6900%	0.7806%
	0.75 to <2.50	10,438	82	0.7856%	1.7160%	1.7220%	1.1351%
	0.75 to <1.75	5,743	35	0.6094%	1.3230%	1.3212%	0.8543%
	1.75 to <2.5	4,695	47	1.0011%	2.4200%	2.4200%	1.4516%
	2.50 to <10.00	10,844	249	2.2962%	6.0170%	5.8934%	3.0783%
	2.5 to <5	5,167	75	1.4515%	3.9900%	3.9900%	2.0592%
	5 to <10	5,677	174	3.0650%	7.9400%	7.8156%	3.8976%
	10.00 to <100.00	1,896	295	15.5591%	21.7980%	21.1422%	16.1753%
	10 to <20	1,129	121	10.7174%	16.0300%	16.0300%	11.7115%
	20 to <30	421	66	15.6770%	22.1200%	22.1200%	15.6964%
	30.00 to <100.00	346	108	31.2139%	37.1960%	36.5152%	28.9574%
	100.00 (Default)	1,455	-	0.0000%	100.0000%	0.0000%	0.0000%

The number of borrowers subject to short-term contracts (but not only) accounts for just under 30% of the total number of customers; this percentage rises to around 30%-35% in the rating classes with a risk level between 0.5% and 2.5%.

For the SME Immovable Property portfolio, the comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.

The number of short-term contracts included within this segment is, by definition, immaterial.

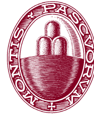


EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Retail - Secured by immovable property non-SME

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Retail - Secured by immovable property non-SME - AIRB	0.00 to <0.15	3,410	2	0.0587%	0.1300%	0.1300%	0.0596%
	0.00 to <0.10	-	-	0.0000%	0.0000%	0.0000%	0.0000%
	0.10 to <0.15	3,410	2	0.0587%	0.1300%	0.1300%	0.0596%
	0.15 to <0.25	17,545	16	0.0912%	0.2000%	0.2000%	0.1080%
	0.25 to <0.50	102,524	122	0.1190%	0.3760%	0.3774%	0.1768%
	0.50 to <0.75	47,150	144	0.3054%	0.6900%	0.6900%	0.4059%
	0.75 to <2.50	129,766	785	0.6049%	1.4940%	1.5161%	0.9861%
	0.75 to <1.75	101,532	463	0.4560%	1.3350%	1.3420%	0.7492%
	1.75 to <2.5	28,234	322	1.1405%	2.4200%	2.4200%	1.8485%
	2.50 to <10.00	31,078	1.033	3.3239%	5.7230%	5.5844%	5.4232%
	2.5 to <5	14,953	346	2.3139%	3.9900%	3.9900%	3.9650%
	5 to <10	16,125	687	4.2605%	7.8580%	7.7928%	7.1238%
	10.00 to <100.00	10,380	1.407	13.5549%	21.5880%	21.3926%	18.6204%
	10 to <20	4,877	415	8.5093%	16.0300%	16.0300%	13.2379%
	20 to <30	2,363	337	14.2615%	22.1200%	22.1200%	18.0640%
	30.00 to <100.00	3,140	655	20.8599%	36.4950%	36.7125%	27.2405%
	100.00 (Default)	5,758	-	0.0000%	100.0000%	0.0000%	0.0000%

For the non-SME Immovable Property portfolio, the comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.

The number of short-term contracts included within this segment is, by definition, immaterial.

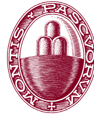


EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Retail - Qualifying revolving

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Retail - Qualifying revolving - AIRB	0.00 to <0.15	16,465	5	0.0304%	0.1300%	0.1300%	0.0984%
	0.00 to <0.10	-	-	0.0000%	0.0000%	0.0000%	0.0000%
	0.10 to <0.15	16,465	5	0.0304%	0.1300%	0.1300%	0.0984%
	0.15 to <0.25	133	-	0.0000%	0.2000%	0.2000%	0.1515%
	0.25 to <0.50	1,594	-	0.0000%	0.3850%	0.3647%	0.1588%
	0.50 to <0.75	6,456	14	0.2169%	0.6900%	0.6900%	0.2462%
	0.75 to <2.50	12,787	31	0.2424%	1.6240%	1.6526%	0.4804%
	0.75 to <1.75	7,320	14	0.1913%	1.3000%	1.3166%	0.3976%
	1.75 to <2.5	5,467	17	0.3110%	2.4200%	2.4200%	0.5886%
	2.50 to <10.00	8,271	147	1.7773%	5.7060%	5.8716%	3.8960%
	2.5 to <5	2,557	30	1.1732%	3.9900%	3.9900%	1.5073%
	5 to <10	5,714	117	2.0476%	7.1680%	6.9497%	4.7684%
	10.00 to <100.00	529	48	9.0737%	20.0270%	20.4464%	13.9945%
	10 to <20	241	21	8.7137%	16.0300%	16.0300%	7.1763%
	20 to <30	155	17	10.9677%	22.1200%	22.1200%	14.3666%
	30.00 to <100.00	133	10	7.5188%	36.5060%	38.7082%	18.3593%
	100.00 (Default)	459	-	0.0000%	100.0000%	0.0000%	0.0000%

For the Retail Qualifying Revolving portfolio, the comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.

All contracts included within this segment are effectively short-term.

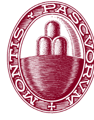


EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Retail - Other SME

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Retail - Other SME	0.00 to <0.15	817	3	0.3672%	0.1040%	0.1026%	0.2155%
	0.00 to <0.10	275	1	0.3636%	0.0730%	0.0736%	0.2254%
	0.10 to <0.15	542	2	0.3690%	0.1300%	0.1300%	0.2087%
	0.15 to <0.25	1,227	5	0.4075%	0.2000%	0.2000%	0.2886%
	0.25 to <0.50	16,929	25	0.1477%	0.3850%	0.3531%	0.3398%
	0.50 to <0.75	8,859	27	0.3048%	0.6900%	0.6900%	0.6256%
	0.75 to <2.50	43,786	406	0.9272%	1.6810%	1.7026%	1.4026%
	0.75 to <1.75	25,517	193	0.7564%	1.3050%	1.3109%	1.1355%
	1.75 to <2.5	18,269	213	1.1659%	2.4200%	2.4200%	1.7284%
	2.50 to <10.00	50,203	1,551	3.0895%	5.8880%	5.8679%	4.0548%
	2.5 to <5	21,348	417	1.9533%	3.9900%	3.9900%	2.5082%
	5 to <10	28,855	1,134	3.9300%	7.7040%	7.6836%	4.9135%
	10.00 to <100.00	14,054	2,329	16.5718%	20.3880%	20.0067%	24.9978%
	10 to <20	7,447	678	9.1043%	16.0300%	16.0300%	11.6746%
	20 to <30	2,073	319	15.3883%	22.1200%	22.1200%	19.9832%
	30.00 to <100.00	4,534	1,332	29.3780%	36.4320%	38.5511%	43.0529%
	100.00 (Default)	29,821	-	0.0000%	100.0000%	0.0000%	0.0000%

The number of borrowers subject to short-term contracts (but not only) account for just over 10% of the total number of customers, which is essentially stable across all rating classes.

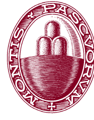
For the Retail Other SME portfolio, the comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.



EU CR9: IRB approach – Back-testing of PD per exposure class (fixed PD scale) – Retail - Other non-SME

Exposure class X	PD scale	Number of obligors at the end of the year	of which: number of obligors which defaulted during the year	Observed average default rate (%)	Exposures weighted average PD (%)	Average PD (%)	Average historical annual default rate (%)
a	b	c	d	e	f	g	h
Retail - Other non-SME	0.00 to <0.15	48,160	17	0.0353%	0.1300%	0.1300%	0.3416%
	0.00 to <0.10	-	-	0.0000%	0.0000%	0.0000%	0.0000%
	0.10 to <0.15	48,160	17	0.0353%	0.1300%	0.1300%	0.3416%
	0.15 to <0.25	634	2	0.3155%	0.2000%	0.2000%	0.4458%
	0.25 to <0.50	11,449	11	0.0961%	0.3850%	0.3740%	0.2885%
	0.50 to <0.75	10,045	35	0.3484%	0.6900%	0.6900%	0.4872%
	0.75 to <2.50	43,868	238	0.5425%	1.7090%	1.6990%	1.0550%
	0.75 to <1.75	24,525	83	0.3384%	1.3170%	1.3146%	0.7842%
	1.75 to <2.5	19,343	155	0.8013%	2.4200%	2.4200%	1.3578%
	2.50 to <10.00	49,623	1,403	2.8273%	5.5670%	5.9904%	4.2369%
	2.5 to <5	18,067	258	1.4280%	3.9900%	3.9900%	2.2623%
	5 to <10	31,556	1,145	3.6285%	7.4670%	6.6740%	5.2352%
	10.00 to <100.00	19,925	2,905	14.5797%	22.5720%	24.7513%	23.1837%
	10 to <20	4,259	453	10.6363%	16.0300%	16.0300%	11.6302%
	20 to <30	5,259	563	10.7055%	22.1200%	22.1200%	12.2303%
	30.00 to <100.00	10,407	1,889	18.1512%	37.9400%	35.4226%	27.0691%
	100.00 (Default)	71,471	-	0.0000%	100.0000%	0.0000%	0.0000%

The number of borrowers subject to short-term contracts is immaterial. The analysis of long-term average rates is conducted on the basis of the default rates observed on non-overlapping annual cohorts, which therefore excludes any distortionary effects on the indicator arising from the repeated use of the same information on multiple cohorts. The comparison between both the historical (column h) and observed (column e) default rates and the default probabilities confirms the conservatism of the rating models across all the proposed PD ranges.



Annex XXIII - Disclosure of specialised lending

EU CR10.1: Specialised lending and equity exposures under the simple riskweighted approach: Project finance (Slotting approach)

		Specialised lending : Project finance (Slotting approach)					
Regulatory categories	Remaining maturity	On-balancesheet exposure	Off-balancesheet exposure	Risk weight	Exposure value	Risk weighted exposure amount	Expected loss amount
		a	b	c	d	e	f
Category 1	Less than 2.5 years	17,792	2,209	50%	18,985	8,644	-
	Equal to or more than 2.5 years	319,004	21,426	70%	330,889	212,165	1,324
Category 2	Less than 2.5 years	14,956	51,451	70%	17,423	11,594	70
	Equal to or more than 2.5 years	313,270	35,652	90%	331,545	259,206	2,652
Category 3	Less than 2.5 years	26	2,000	115%	2,026	1,976	57
	Equal to or more than 2.5 years	70,756	53,967	115%	98,462	99,021	2,757
Category 4	Less than 2.5 years	-	-	250%	-	-	-
	Equal to or more than 2.5 years	47,241	-	250%	47,241	118,102	3,779
Category 5	Less than 2.5 years	53	-	-	53	-	26
	Equal to or more than 2.5 years	11,252	-	-	11,252	-	5,626
Total	Less than 2.5 years	32,826	55,660		38,487	22,213	153
	Equal to or more than 2.5 years	761,522	111,044		819,389	688,494	16,138

EU CR10.2: Specialised lending and equity exposures under the simple riskweighted approach: Income-producing real estate and high volatility commercial real estate (Slotting approach)

Specialised lending : Income-producing real estate and high volatility commercial real estate (Slotting approach)

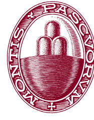
Regulatory categories	Remaining maturity	On-balancesheet exposure	Off-balancesheet exposure	Risk weight	Exposure value	Risk weighted exposure amount	Expected loss amount
		a	b	c	d	e	f
Category 1	Less than 2.5 years	-	-	50%	-	-	-
	Equal to or more than 2.5 years	2,983	1,300	70%	3,633	2,003	15
Category 2	Less than 2.5 years	138,289	47,012	70%	152,165	103,944	609
	Equal to or more than 2.5 years	253,372	244,388	90%	368,167	283,555	2,945
Category 3	Less than 2.5 years	43,102	7,379	115%	46,477	51,822	1,301
	Equal to or more than 2.5 years	82,912	25,757	115%	96,290	92,563	2,696
Category 4	Less than 2.5 years	56	130	250%	56	107	4
	Equal to or more than 2.5 years	9,268	2,770	250%	10,653	20,424	852
Category 5	Less than 2.5 years	6,794	1	-	6,794	-	3,535
	Equal to or more than 2.5 years	41,961	4,926	-	44,424	-	22,212
Total	Less than 2.5 years	188,241	54,521		205,493	155,872	5,450
	Equal to or more than 2.5 years	390,496	279,140		523,167	398,545	28,720

EU CR10.3: Specialised lending and equity exposures under the simple riskweighted approach: Object finance (Slotting approach)

Specialised lending : Object finance (Slotting approach)

Regulatory categories	Remaining maturity	On-balancesheet exposure	Off-balancesheet exposure	Risk weight	Exposure value	Risk weighted exposure amount	Expected loss amount
		a	b	c	d	e	f
Category 1	Less than 2.5 years	-	-	50%	-	-	-
	Equal to or more than 2.5 years	-	-	70%	-	-	-
Category 2	Less than 2.5 years	-	-	70%	-	-	-
	Equal to or more than 2.5 years	-	-	90%	-	-	-
Category 3	Less than 2.5 years	-	-	115%	-	-	-
	Equal to or more than 2.5 years	-	-	115%	-	-	-
Category 4	Less than 2.5 years	-	-	250%	-	-	-
	Equal to or more than 2.5 years	-	-	250%	-	-	-
Category 5	Less than 2.5 years	11,232	-	-	11,232	-	5,616
	Equal to or more than 2.5 years	4,153	-	-	4,153	-	2,077
Total	Less than 2.5 years	11,232	-		11,232	-	5,616
	Equal to or more than 2.5 years	4,153	-		4,153	-	2,077

Tables EU CR10.4 and EU CR10.5 have not been presented because the Group did not have any of these types of exposures as at 31.12.2021.



Annex XXV - Disclosure of exposures to counterparty credit risk

EU CCRA: Qualitative disclosure related to CCR

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

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

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

In accordance with regulatory requirements, the Montepaschi Group uses the Standardized Approach for Counterparty Credit Risk (SA CCR) to calculate the value of exposures for derivatives and long-term settlement transactions with the application of regulatory netting where applicable. The calculation is performed using the new rules introduced by Articles 271 et seq. of CRR2 instead of the previous Current Exposure Method (CEM).

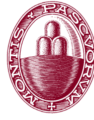
For SFTs (securities financing transactions), the comprehensive method with supervisory volatility adjustments is used.

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

In order for risk to be managed effectively within the Bank, the counterparty risk measurement system, is integrated into decision-making processes. Risk exposure levels are subject to daily monitoring and reporting by the first and second level of control, based on proprietary systems.

Annually, in accordance with the Risk Appetite Framework, the Parent Company has defined and approved operational limits for counterparty credit exposures in terms of EAD for derivatives and SFTs transactions.

Such limits are expressed by level of delegated



authority and subject to daily monitoring by the second level of control (the Parent Company's Risk Management Unit). 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 facilities to counterparties for which requests were received from the Business Units, with a regular review of the maximum exposure levels defined;
- inclusion of the maximum exposure levels in the management systems;
- inclusion of deals and supporting contracts in the systems, taking account of regulatory requirements and Group policies; ISDA/ISMA contracts are registered with their related Credit Support Annex (CSA) and Global Master Repurchase Agreement (GMRA) or Global Master Securities Lending Agreement (GMSLA), underwritten with each counterparty;
- daily activities to monitor and exchange collaterals with counterparties in relation to the market value of outstanding positions (Collateral Management);
- daily checks on the maximum level of exposure achieved, as well as its comparison with the maximum level of exposures envisaged for single counterparty, also in "real time" mode and evidence the overrunning of credit lines, taking into account the guarantees given or received;
- periodical checks by the legal function to determine whether the 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, according to the case law of their respective countries. It should be noted 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 the specific section.

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:

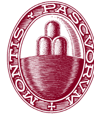
- not of a speculative nature;
- are for the exclusive purpose of covering
- risk;
- are associated with an underlying
- position, even if they are contractually
- and administratively separate from it;
- show limited elements of complexity;
- on the overall position covered, they hold
- no financial 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 and EUREX CLEARING AG for activities with OTC derivatives on interest rates. With regard to credit derivatives, it indirectly joined the credit derivative clearing service managed by the central counterparty ICE Clear Europe and LCH SA. while for SFT transactions, the Group has directly joined the service managed by *Cassa compensazione e garanzia*.

The centralisation of a part of trading in

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

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



EU CCR1: Analysis of CCR exposure by approach

	a	b	c	d	e	f	g	h
	Replacement cost (RC)	Potential future exposure (PFE)	EEPE	Alpha used for computing regulatory exposure value	Exposure value pre-CRM	Exposure value post-CRM	Exposure value	RWEA
EU - Original Exposure Method (for derivatives)	-	-		1,4	-	-	-	-
EU - Simplified SA-CCR (for derivatives)	-	-		1,4	-	-	-	-
SA-CCR (for derivatives)	250,403	575,426		1,4	2,940,572	1,156,161	1,168,460	849,751
IMM (for derivatives and SFTs)			-	-	-	-	-	-
Of which securities financing transactions netting sets			-		-	-	-	-
Of which derivatives and long settlement transactions netting sets			-		-	-	-	-
Of which from contractual cross-product netting sets			-		-	-	-	-
Financial collateral simple method (for SFTs)					-	-	-	-
Financial collateral comprehensive method (for SFTs)					3,396,145	911,073	911,069	180,727
VaR for SFTs					-	-	-	-
Total at 31/12/2021					**6,336,717**	**2,067,234**	**2,079,529**	**1,030,478**

As indicated previously, the MPS Group calculates at consolidated level the total EAD volume related to financial and credit derivatives according to the Standardised Approach for Counterparty Credit Risk (SA CCR) for all outstanding positions, as of the reporting date of 30 June 2021. The model takes into account the mitigation effects of the ISDA netting agreements as well as the collateral received to mitigate credit exposure and any collateral overpaid under the Credit Support Annex (CSA) agreements.

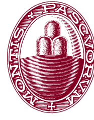
All SFTs are reported using the comprehensive method for the treatment of financial collateral.

EU CCR2: Transactions subject to own funds requirements for CVA risk

		Valore dell'esposizione	RWA
1	**Total portfolios subject to the advanced method**	**-**	**-**
2	(i) VaR component (including the 3× multiplier)		-
3	(ii) SVaR component (including the 3× multiplier)		-
4	**All portfolios subject to the standardised method**	**794,680**	**556,633**
EU4	Based on the original exposure method	-	-
5	**Total subject to the CVA capital charge**	**794,680**	**556,633**

EU CCR3: Standardised approach – CCR exposures by regulatory exposure class and risk weights

	Exposures classes	Classes of credit worthiness (Weighting Factors)											
		a	b	c	d	e	f	g	h	i	j	k	l
		0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	Others	Total exposure value
1	Central governments or central banks	-	-	-	-	-	-	-	-	1,845	-	-	1,845
2	Regional governments or local authorities	-	-	-	-	13,137	-	-	-	-	-	-	13,137
3	Public sector entities	-	-	-	-	-	-	-	-	5,917	2	-	5,919
4	Multilateral development banks	-	-	-	-	-	-	-	-	-	-	-	-
5	International organisations	-	-	-	-	-	-	-	-	-	-	-	-
6	Institutions	-	1,259,333	107,764	-	229,390	210,674	-	-	15,051	541	-	1,822,752
7	Corporates	-	-	-	-	290,835	101,799	-	-	422,603	-	-	815,238
8	Retail	-	-	-	-	-	-	-	-	-	-	-	-
9	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-	-	-	1	-	-	1
11	**Total as at 31/12/2021**	**-**	**1,259,333**	**107,764**	**-**	**533,362**	**312,473**	**-**	**-**	**445,417**	**543**	**-**	**2,658,892**



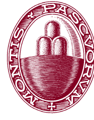
EU CCR4.1: IRB approach – CCR exposures by exposure class and PD scale: CCR exposures by exposure class and PD scale: corporate

		a	b	c	d	e	f	g
		Exposure value	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWEA	Density of risk weighted exposure amount
Class 01	0.00 to <0.15	19,691	0.0925%	113	40.1829%	2	4,597	23.3440%
Class 02	0.15 to <0.25	5,251	0.2000%	60	41.5135%	2	1,704	32.4567%
Class 03	0.25 to <0.50	332,231	0.4366%	277	16.1526%	3	72,063	21.6905%
Class 04	0.50 to <0.75	15,475	0.6900%	136	41.1187%	2	10,407	67.2489%
Class 05	0.75 to <2.50	184,748	1.7314%	422	22.7125%	2	91,682	49.6253%
Class 06	2.50 to <10.00	99,563	4.3039%	156	13.9860%	2	39,214	39.3864%
Class 07	10.00 to <100.00	3,047	20.5063%	21	40.1205%	5	5,106	167.5597%
Class 08	100.00 (Default)	21,276	97.8022%	35	69.1476%	1	6,699	31.4854%
Total		**765,124**	**3.9870%**	**1,254**	**18.5510%**	**3**	**318,723**	**41.6564%**

The total amount for columns (a), (c), (f), and (g) includes the slotting criteria

EU CCR4.2: IRB approach – CCR exposures by exposure class and PD scale: retail

		a	b	c	d	e	f	g
		Exposure value	Exposure weighted average PD (%)	Number of obligors	Exposure weighted average LGD (%)	Exposure weighted average maturity	RWEA	Density of risk weighted exposure amount
Class 01	0.00 to <0.15	398	0.1190%	24	42.4190%	-	38	9.5833%
Class 02	0.15 to <0.25	164	0.2000%	27	41.8280%	-	22	13.6815%
Class 03	0.25 to <0.50	1,834	0.3790%	123	42.2090%	-	384	20.9536%
Class 04	0.50 to <0.75	1,514	0.6900%	87	41.3710%	-	432	28.5594%
Class 05	0.75 to <2.50	3,957	1.7300%	242	41.1340%	-	1,606	40.5779%
Class 06	2.50 to <10.00	3,050	6.1290%	212	41.8590%	-	1,580	51.7946%
Class 07	10.00 to <100.00	245	17.2170%	23	43.5470%	-	178	72.8553%
Class 08	100.00 (Default)	11,450	100.0000%	53	69.9300%	-	1,021	8.9128%
Total		**22,610**	**52.0360%**	**791**	**55.9710%**	**-**	**5,261**	**23.2685%**



EU CCR5 – Composition of collateral for CCR exposures

		a	b	c	d	e	f	g	h
		Collateral used in derivative transactions				Collateral used in SFTs			
	Collateral type	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
		Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
1	Cash – domestic currency	-	645,376	-	2,548,548	-	-	-	-
2	Cash – other currencies	-	17,032	-	31,269	-	-	-	-
3	Domestic sovereign debt	-	754,997	-	4,059	-	12,505,156	-	12,341,540
4	Other sovereign debt	-	-	-	-	-	-	-	-
5	Government agency debt	-	-	-	-	-	-	-	-
6	Corporate bonds	-	-	-	-	-	15,193	-	1,788,224
7	Equity securities	-	5,330	-	-	-	28,530	-	3,317
8	Other collateral	-	-	-	-	-	83,285	-	254,196
9	**Total**	**-**	**1,422,735**	**-**	**2,583,877**	**-**	**12,632,163**	**-**	**14,387,277**

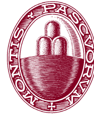
EU CCR6: Credit derivatives exposures

		December-21	
		a	b
		Protection bought	Protection sold
Notionals			
1	Single-name credit default swaps	-	-
2	Index credit default swaps	235,000	-
3	Total return swaps	-	-
4	Credit options	-	-
5	Other credit derivatives	105,307	3,222,092
6	**Total notionals**	**340,307**	**3,222,092**
Fair values			
7	Positive fair value (asset)	195	-
8	Negative fair value (liability)	-	-

EU CCR8: Exposures to CCPs

		December-21	
		a	b
		Exposure value	RWEA
1	**Exposures to QCCPs (total)**[1]		**35,726**
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	1,367,097	29,497
3	*(i) OTC derivatives*	*630,195*	*12,604*
4	*(ii) Exchange-traded derivatives*	*112,575*	*4,407*
5	*(iii) SFTs*	*624,328*	*12,487*
6	*(iv) Netting sets where cross-product netting has been approved*	-	-
7	Segregated initial margin	-	
8	Non-segregated initial margin	-	-
9	Prefunded default fund contributions	311,414	6,228
10	Unfunded default fund contributions	-	-
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	-	-

[1] *QCCP: qualified central counterparty*



Annex XXVII - Disclosure of exposures to securitisation positions

EU SECA: Qualitative disclosure requirements related to securitisation exposures

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.

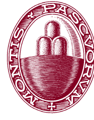
Originated securitisations include:

- 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.

The Montepaschi Group has also completed 4 synthetic securitizations in order to transfer credit risk to the underlying portfolios. These securitizations are an efficient tool for generating and optimising capital.

Securitizations in the strict sense of the term

In general, this type of transaction involves the spin-off of a package of assets (generally loans) recognised in the balance sheet of Group Banks and its subsequent transfer to a *Special Purpose Vehicle*. The SPV, in turn, finances the purchase through the issue and placement of securities exclusively guaranteed by the assets received (ABS – *Asset-Backed Securities*). Resources raised in this way are returned to the Montepaschi Group (the seller), whereas commitments to subscribers are met using the cash flows generated by the loans sold. Following is an outline of the Group's main securitisation transactions outstanding at 31 December 2021 - 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:**
  - NormaSrl2017(2017,Multioriginator)
  - Siena NPL 2018 Srl (2017, BMPS, MPSCS, MPSLF).

Siena Mortgages 10-7 S.r.l

This securitisation transaction was carried out on 30 September 2010. Its portfolio contained 34,971 BMPS performing, real estate backed loans for a total outstanding debt of approx. Euro 3.5 bn. The special-purpose vehicle Siena Mortgages 10–7 is 93% owned by Stichting Canova, a foundation incorporated under Dutch law, and the remaining part is owned by the Parent Company.

The remaining debt balance amounted to EUR 1,004.32 mln as at 31/12/2021 (14,461 outstanding mortgages).

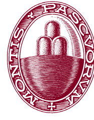
To finance the acquisition of the transferred portfolio, the Vehicle issued ABS notes in the classes hereinafter indicated (in parenthesis is the rating attributed by the agencies Moody's and Fitch as at 31 December 2021):

- Class A1 notes for an original nominal amount of EUR 595 mln, fully redeemed;
- Class A2 notes for an original nominal amount of EUR 400 mln, fully redeemed;
  - Class A3 notes (Aa3 and AA) for a nominal amount of EUR 178.6 mln as at 31 December 2021;
  - Class B notes (Baa3) for a nominal amount of EUR 817.6 mln as at 31 December 2021;
  - Class C notes (NR) for a nominal amount of EUR 62.4 mln as at 31 December 2021.

Classes A1 and A2 were placed with market investors, whereas the remaining classes of notes issued by the vehicle were initially underwritten by the Parent Company and a part of them (from Class 3) were sold on the market. The deal has not entailed the *derecognition* of the underlying assets from the balance sheet of the Parent Company (transferor), which has substantially retained all risks and rewards associated with the property of the assets sold.

Siena PMI 2016 Serie 2 Srl

In 2019, the Group finalised, through the vehicle called Siena PMI 2016 S.r.l., a securitisation transaction in accordance with Regulation (EU) 2402/2017 with entry into force 1 January 2019. The transaction was completed on 12 April 2019 through



the disposal to a Vehicle of a portfolio of performing loan agreements granted to Italian small to medium sized enterprises, in the amount of EUR 2,258.4 mln. As at 31 December 2021, the remaining debt was EUR 890.37 mln, for a total of 11,384 loan agreements.

To finance the acquisition, the Vehicle issued, ABS notes in the classes hereinafter indicated (in parenthesis the rating attributed by the Fitch and DBRS agencies as at 31 December 2021):

- Class A1 notes for a nominal amount of EUR 519.40 mln, were redeemed;
- Class A2 notes (AA and AAA) for a nominal amount of EUR 58.09 mln, as of 31 December 2021;
- Class B notes (AA- and AAL) for a nominal amount of EUR 225.8 mln;
- Class C notes (BB+ and BBH) for a nominal amount of EUR 271.0 mln;
- Class D notes (CCC and C) for a nominal amount of EUR 248.5 mln.
- Class J notes (not rated) for a nominal amount of EUR 180.7 mln.

The Class A2 notes were placed with institutional investors for a total of EUR 720 mln; the remaining senior notes, together with the mezzanine and junior notes, were instead underwritten by the Parent Company that can dispose them with the next sale on the market or can use them as collaterals for loan transactions.

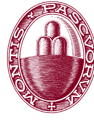
The partial sale of the notes did not entail the *derecognition* of the underlying assets from the balance sheet of the Parent Company (transferor), which has substantially retained all risks and rewards associated with the ownership of the assets sold.

Norma SPV Srl

On 1 July 2017, as part of a securitisation of *non-performing* loans originated by MPS Group banks as well as banks outside the MPS Group, Banca MPS and MPS Capital Services completed the disposal of a portfolio of *non-performing* loans in the *real estate* and *shipping sectors*.

At the disposal date, the total portfolio acquired by the vehicle consisted of 54 loans for a value of EUR 495.49 mln, of which 12 loans disbursed by Banca MPS for a value of EUR 24 mln for "*real estate*" and EUR 145.3 mln for "shipping", and 7 loans disbursed by MPS Capital Services for a value of EUR 28.8 mln for "real estate" and USD 86.8 mln for "*shipping*".

To fund the acquisition of this portfolio, on 21 July 2017 the Vehicle issued Class A1, B, C and D ABS securities (the "securities") for the real estate sector and Class A1, B, C1, C2 and D ABS securities for the shipping sector. The senior classes of both the real estate and shipping transactions were placed with



institutional investors, while the mezzanine and junior classes were subscribed by each transferring bank in proportion with the transferred loans. In particular, the MPS Group subscribed the following classes:

- Real Estate: Class B for a nominal amount of EUR 31.2 mln; Class C for a nominal amount of EUR 4.2 mln; Class D for a nominal amount of EUR 15.8 mln.

- Shipping: Class B for a nominal amount of EUR 75.5 mln; Class C1 for a nominal amount of EUR 32.7 mln; Class C2 for a nominal amount of EUR 10.4 mln; Class D for a nominal amount of EUR 105.6 mln.

In January 2020, the derecognition of the underlying assets from the balance sheet of the Parent Company (transferor) was completed

At 31 December 2021, the amortized nominal value of the classes subscribed by the MPS Group is as follows:

– Real Estate: Class B 10.63 €mln; Class C 4.21 €mln; Class D 15.83 €mln.

– Shipping: Class B 76,5 €mln; Class C1 33.2 €mln; Class C2 10.6 €mln; Class D 107.1 €mln.

Siena NPL 2018 Srl

This is the Securitisation transaction included in the 2017-2021 Restructuring Plan for the disposal of the bad loans portfolio as at 31 December 2016, with a gross book value of approximately €4.58BN as at 31 December 2016, through the Italian Recovery Fund.

The Securitisation transaction, regulated pursuant to Law no. 130/1999 and concerning the purchase without recourse of a portfolio of loans which, as at 31 December 2016, were classified under bad loan status by Banca Monte dei Paschi di Siena S.p.A., MPS Capital Services Banca per le Imprese S.p.A. and Monte dei Paschi di Siena Leasing & Factoring, Banca per i Servizi Finanziari alle Imprese S.p.A., was completed on 28 December 2017. The total sale price of the receivables included in the Portfolio is approximately Euro 5.06BN (20.58% of the GBV as at 31 December 2016). The portfolio's GBV as at 31 December 2020 was €1.61 bn.

The vehicle financed acquisition of the portfolio through issuance of the following asset-backed securities (the "Securities"), with limited recourse:

(i) Senior A1 notes for EUR 2,683.5 mln;

(ii) Senior A2 notes for EUR 412.1 mln;

(iii) Mezzanine notes for EUR 847.6 mln;

(iv) Junior notes for EUR 565.0 mln centralised in dematerialised form at Monte Titoli S.p.A. and initially not listed on any Italian and/or foreign regulated market.

The transaction complied with the timeline

of the 2017-2021 Restructuring Plan and the agreements with Quaestio Capital SGR S.p.A. On 9 January 2018, the transfer was completed of 95% of the mezzanine notes to Quaestio Capital SGR on behalf of *Italian Recovery Fund* (Fondo Atlante II). In May 2018, at the end of the rating assignment process, the *Senior notes* were restructured into a single class, obtaining an *investment grade* rating from the 3 ratings agencies involved. The securities issued by the vehicle following the restructuring were the following:

(i) Senior A notes for EUR 2,918 mln, rating A3/BBB+/BBB (Moody's/Scope Ratings/DBRS). The outstanding amount as at 31 December 2021 was EUR 1,583 mln. As of 31 December 2021, the rating was Baa2/BBB+/BB high (Moody's/Scope Ratings/DBRS);

(iii) Mezzanine B notes for EUR 847.6 mln, without rating and transferred to the Italian Recovery Fund managed by Quaestio Capital SGR. The *outstanding* amount as at 31 December 2021, due to the capitalisation of the interest, was about EUR 874 mln;

(iv) Junior notes for EUR 565.0 mln, without rating.

In June 2018, the sale of 95% of the junior notes to *Italian Recovery Fund* made it possible to achieve, in addition to the sale of the mezzanine notes, the deconsolidation of the entire securitised portfolio.

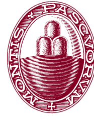
Lastly, in July 2018, the MEF granted, with its decree, the government guarantee (GACS) on the senior tranche of the securitisation. Obtainment of the GACS completed the entire securitisation process.

For all the securitisation transactions described above (and described subsequently), during the period under review the Parent Company and its subsidiaries have not provided any financial or other support without being obliged under the contract. There are no cases of financial or other support to a previously non-consolidated structured entity as a result of which the structured entity was controlled by the Group.

The Group also does not intend to provide financial or other support to consolidated securitisation vehicles, nor to assist entities in obtaining financial support.

<u>Self-Securitisations</u>

These transactions involve the transfer of a portfolio of loans originated by Group Banks to a Special Purpose Entity which, in turn, finances the purchase through the issue of *Asset Backed Securities (ABS)*. All *Asset Backed Securities* (ABS) issued are underwritten by the Parent Company. The Group's full underwriting still provided the Group with securities that could be used for ECB



refinancing (limited to *senior traches* as ECB *eligible*) and repo transactions by increasing the availability of disposable assets, thus improving the MPS's safety margin against the MPS Group's liquidity risk position *(counterbalancing capacity)*.

Here follows a list of the self-securitisations as at 31 December 2020:

- Siena Mortgages 07 -5 Srl (2007);
- Siena Mortgages 07 -5/Serie 2 Srl (2008);
- Siena Mortgages 09 -6 (2009);
- Siena PMI 2016 Srl (2016);
- Siena Lease 2016-2 (2016).

The first two transactions, involving performing residential mortgage loans 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 Siena Lease 2016-2 transaction, whose securities were issued in January 2016, was structured on a portfolio of performing loans disbursed by the subsidiary MPS Leasing & Factoring Banca per i Servizi Finanziari alle Imprese in the amount of €1,619.8 mln.

The Siena PMI 2016 transaction on a portfolio of performing loans disbursed to small and medium-sized Italian companies for approximately EUR 1.74 billion, was repaid early through the repurchase of the residual securitized portfolio.

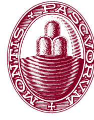
Self-securitization transactions do not contribute to the numerical data included in the following tables of quantitative information, since - as already mentioned - the transactions in question do not constitute securitizations in the strict sense.

Synthetic securitization transactions

The prudential regulation on synthetic securitizations is governed by the CRR, as amended by Regulation (EU) No.2017/2401, in particular in Part Three, Title II, Chapter 5 - Securitizations and in Part Five - Transferred credit risk exposures.

In general, it is envisaged, through the stipulation of guarantee contracts, the purchase of protection of the credit risk underlying a loan portfolio, of which the Originator retains full ownership and the relative servicing management. These transactions are therefore aimed at transferring the credit risk from the originator to an external counterparty. This transfer does not entail the derecognition of assets and, therefore, assets remain in the *Originator*'s financial statements.

The Group has carried out four synthetic



securitisation transactions, the main features of which are described below.

Siena 2021 - RegCap-1

The "Siena 2021 - RegCap-1" transaction was completed in July 2021 on a portfolio consisting largely of "Stage 2" loans disbursed to companies classified as Corporate, SME Corporate and SME Retail, with a residual debt of approximately EUR 755.4 billion, of which 5% is held by BMPS in compliance with the retention rule.

Three tranches were identified as part of the transaction:

- Senior: for a nominal amount of EUR 650.2 mln;
- Mezzanine: for a nominal amount of EUR 51.3 mln;
- Junior: for a nominal amount of EUR 16.1 mln.

The risk relating to the Senior and Junior tranches was retained by BMPS, while the Mezzanine tranche is guaranteed by a market counterparty. The financial guarantee is funded and requires the guarantor of the Mezzanine tranche to deposit the entire amount of the guarantee in an escrow account opened with Banca Monte dei Paschi.

Siena 2021 - Specialised Lending

The "Siena 2021 - Specialised Lending" transaction was completed in July 2021 on a portfolio of "Specialised Lending" loans disbursed by Monte dei Paschi Capital Services to companies classified as Corporate, with a residual debt of approximately 602.7 billion euros, of which 5% is held by BMPS in compliance with the retention rule.

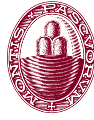
Three tranches were identified as part of the transaction:

- Senior: for a nominal amount of EUR 481.0 mln;
- Mezzanine: for a nominal amount of EUR 31.5 mln;
- Junior: for a nominal amount of EUR 60.1 mln.

The risk relating to the Senior tranche was retained by BMPS, while the Mezzanine and Junior tranches are guaranteed by a market counterparty. The financial guarantee is funded and requires the guarantor of the Mezzanine and Junior tranches to deposit the entire amount of the guarantee in an escrow account opened with Banca Monte dei Paschi.

Siena 2020 – FEI transaction Siena 2020 - FEI transaction was carried out by participating in the "SME Initiative Italy" launched by the European Investment Fund (EIF).

Given an initiative co-financed by the European Union, with the contribution of various Member States and by the EIF



itself, its objective is to allow member banks to reduce RWAs generated by the portfolio and, at the same time, provide support to companies located in the eight Southern Italian Regions (Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardinia and Sicily), through the disbursement of loans under subsidised financial terms. The following tranches have been identified:

- Senior tranche: for a nominal value of 1,389.9 €mln;
- Mezzanine tranches: for a nominal value of 55.7 €mln;
- Junior tranche: for a nominal value 40.8 € mln.

The Senior tranche is retained by BMPS, the three Mezzanine tranches, and 50% of the Junior tranche have been guaranteed by European Investment Fund (EIF). The financial guarantee provided by EIF is an unfunded personal guarantee.

Siena 2020 - RegCap-1

"Siena 2020 - RegCap-1" transaction was completed in December 2020 and involved a portfolio of loans to Corporate and SME Corporate, with a remaining debt balance of approx. 1.9 €bn.

The following tranches have been identified:

- Senior: for a nominal value of 1,642 €/mln;
- Junior: for a nominal value 123.6 €/mln.

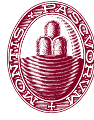
The risk relating to the Senior tranche was retained by BMPS, while the Junior tranche is guaranteed by a market counterparty. The financial guarantee is funded and requires the guarantor of the Junior tranche to deposit the entire amount of the guarantee in an escrow account opened with Banca Monte dei Paschi.

Third-party securitizations

The Group allocates a part of its capital to stock market investments, with the objective to:

- attain a risk-adjusted return that is significantly higher than the cost of allocated capital so as to create value for the shareholders;
- diversify risks with respect to other risks that are typical of its business;
- maintain in-depth and up-to-date knowledge of financial market trends which additionally and inevitably condition the domestic markets in which the Group mainly operates.

Activities are overseen by the Finance, Treasury and Capital Management Area and are carried out within a broad and varied range of potential financial market areas so as to draw maximum benefit from risk diversification and reduced exposure to individual sectors: from investment activities in the government bonds, securities and



forex markets to activities in the corporate bond and *credit derivative* markets.

Third-party securitisations are compliant with the above-mentioned process of diversification and with the support of a specialised desk within the subsidiary, Mps Capital Services. The investment process starts with the analyses carried out by the traders in a bottom-up logic and is included in the overall monitoring of portfolio risks. As with all operations in securities markets, these investments are subject to risk limits set by the Board of Directors that are monitored daily by the *Business Control Units* and Risk Management; *Stop loss*, risk and nominal limits are defined for maximum exposure for major issuer categories broken down by rating.

Methods for calculating risk weighted exposures

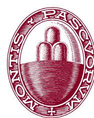
Starting from 1 January 2019, MPS Group is subject to a new regulatory *framework* on securitisation exposures introduced into the European Union by Regulations n. 2017/2401 and n. 2017/2402. The Regulation (EU) 2017/2401 of 12 December 2017 amending Regulation (EU) n. 575/2013 (CRR) as regards calculation of capital requirements for securitisations.

In respect of securitisations the securities of which were issued before 1 January 2019, institutions shall continue to apply the CRR provisions in force as of 31 December 2018. Under the new framework, for the calculation of capital requirements for securitisations the securities of which were issued before 1 January 2019, the Group applies the following three methods, according to a sequential approach:

- Securitisation IRB Approach (SEC-IRBA);
- Securitisation Standardised Approach (SEC-SA);
- Securitisation External Ratings Based Approach (SEC-ERBA).

For rated positions or positions in respect of which an inferred rating may be used, the Group uses the SEC-ERBA instead of the SEC-SA in each of the following cases:

1. where the application of the SEC-SA would result in a risk weight higher than 25% for positions qualifying as positions in an STS (*Simple, Transparent and Standardised*) securitization, pursuant to Regulation (EU) 2017/2402;
2. where the application of the SEC-SA would result in a risk weight higher than 25 % or the application of the SEC-ERBA would result in a risk weight higher than 75 % for positions not qualifying as positions in an STS securitisation;
3. for securitisation transactions backed by pools of auto loans, auto leases and equipment leases.



Starting from 1 January 2020, the Group uses, pursuant to Regulation (EU) 2017/2401, the SEC-ERBA for rated positions. Under the standardized approach, 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.*

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	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 SERIE 2	Fitch Italia SpA DBRS Ratings GmbH

[(a)] *Originator in brackets.*

Accounting policies

The *Servizio Bilancio* (Budgeting Department) oversees the correct application of international accounting standards in the treatment of securitization transactions.

The Montepaschi Group has traditional securitisations (a distinction can be made between transactions with derecognition and without derecognition, including the subset of "self-securitisations") and synthetic securitisations as of 2020.

For the classification of traditional securitisations, the effective transfer of risks and benefits is assessed, in accordance with the provisions of IFRS 9 at § 3.2.7, by comparing the exposure of the originator (before and after the transfer) with the variability, in amount and timing, of the net cash flows of the financial asset transferred.

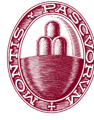
The originator essentially retains all the risks and benefits, when its exposure to the variability of the present value of the future net cash flows of the financial asset does not change significantly following the transfer; in this case, despite the formal transfer of the legal ownership of the receivables, these are not removed from the financial statements of the originator (securitisation without derecognition).

For notes not retained by the originator but placed on the market, a liability is recorded with the vehicle company. In the case where all the liabilities issued by the vehicle company are subscribed by the originator, this is known as "self-securitization". It is instead considered that the originator transfers the risks and benefits when its exposure to fluctuations in the present value of the expected cash flows is not significant in relation to the variability linked to the instrument, prior to its transfer. In this case, the notes issued by the vehicle are placed on the market and not retained by the originator (or only to a very small extent); in this case the receivables sold are removed from the balance sheet (securitization with derecognition) while any notes withheld are recorded.

For accounting purposes, in the case of securitisations with derecognition, the Group calculates the profit or loss as the difference between the consideration received and the gross exposure of the assets sold, while in the case of the disposal of assets without derecognition, there is no additional accounting impact beyond the ordinary management of the underlying receivables not derecognised.

No gains/losses on disposals under securitisation transactions were realised in 2021. In relation to the securitizations carried out, the Parent Company has set up provisions, amounting to 116.75 million euros as of 31 December 2021, recorded in the Financial Statements as a credit position with the vehicles.

For all the securitisation transactions, during the period under review the Parent Company and its subsidiaries have not provided any financial or other support without being obliged under the contract.



If the Group had agreements that could require the provision of financial support for securitised assets, they would be accounted according to IAS 37 "Provisions, Contingent Liabilities and Contingent Assets".

With regard to synthetic securitisations, there is no impact on the balance sheet, whereas, from an economic point of view, the following are recorded: i) commission expenses paid to the protection seller for the guarantee received on the portfolio of receivables underlying the securitisation and ii) value readjustments for credit risk on the securitised portfolio as a benefit for the Group deriving from the guarantee.

Financial assets awaiting securitisation (to be realised within one year) are classified among non-current assets and assets held for sale, according to IFRS 5, if the securitisation meets the derecognition requirements envisaged by IFRS 9, otherwise the assets sold, legally but not for accounting purposes, remain recorded in the original accounting portfolio: financial assets at amortised cost or other assets compulsorily valued at fair value following the related accounting rules envisaged by IFRS 9.

Control System and Top Management Reporting

The securitisation management process is defined by a specific internal regulation which assigns roles and responsibilities to the various organisational units involved in the individual phases of the process.

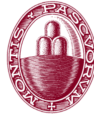
The Parent Company's Structural Liquidity Service establishes general practices and coordinates activities in relation to securitisation transactions. The Montepaschi Group has set up a specific organisational unit within the Parent Company's Specialised Processes and Services Unit, responsible for the management of *performing* securitisations. More specifically, the Credit Guarantees Function within this unit looks after the 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 agreement with the Group's other originator banks, the Credit Guarantees function prepares the summary statements containing the data of the transferred portfolio (Servicer Report). As part of the management of critical issues, the Parent Company's Structural Liquidity function reports cases that may pose potential risks for noteholders to the relevant functions.

In its capacity as third-level control body, the Risk Audit Function 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

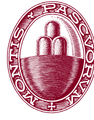
With regard to monitoring procedures for risks inherent in own securitisations, the Bank uses the control tools already in place for portfolio risks. Pursuant to the provisions set out in the Supervisory Instructions Issued by the Bank of Italy on this subject, the Bank makes sure that the overall transactions are managed in compliance with the law and the prospectuses.

When transactions are structured, it is the responsibility of the Structural Liquidity Unit 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.

More specifically:

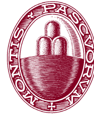
- in order to maintain the role of *Servicer*, if the bank's rating is downgraded to below the levels set out by the rating agencies, it will be required to fund a reserve, known as the *commingling* reserve which, should a default occur, will provide hedging against the risk that the amounts collected on behalf of the vehicle and not yet credited to the vehicle's accounts may fall into the funds available for the general body of creditors of the bankrupt bank;
- for the role of *Account Bank,* Rating Agencies may require a third bank to be entrusted with the custody of the vehicles' financial assets;
- for the role of Counterparty hedge against interest rate risk, if credit scoring is below a certain level, Agencies may require either replacement of (or a guarantee from) the counterparty or specific collateralization. Externalisation or derivative guarantee may instead be imposed by the agencies if creditworthiness is below a certain limit threshold.

Covered Bond Transactions

The MPS Group currently has two Covered Bond programmes for a total plafond of Euro 40 bn. In the course of 2010, the Montepaschi Group launched a first programme for the issuance of Covered Bonds for an amount of Euro 10 bn, increased at the end of 2017 to Euro 20 bn.

In light of the developments in the financial markets, the programme should be considered as part of a wider strategy, aimed at:

- curbing the costs of funding: covered bonds are widely preferred, inasmuch as they are issued directly by the bank and their repayment is guaranteed by a segregated pool of assets (in this case, residential mortgage loans); in the event of issuer bankruptcy, covered bond holders enjoy a right of recourse on a portfolio of segregated high-quality assets and are, therefore, willing to accept a lower yield



than the one offered by similar uncovered bonds;

- diversifying the bank's funding sources on the international market too;
- lengthening its average debt maturity profile.

On 26 June 2015, the meeting of *covered bond* holders approved the proposed amendments to the Programme which made it possible to:

(i) 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;

(ii) activate, if specific cases of default take place pursuant to the Programme, a "*conditional pass through*" type mechanism for the repayment of the bonds issued.

With a view to improving the efficiency and stability of the Group's *counterbalancing capacity*, in 2012 a second issuance programme was authorised for a maximum of Euro 20 bn. The covered bonds were not explicitly rated when launched but, in the course of 2013, were assigned a rating (A) by the agency DBRS. The second programme is not intended for the market but for transactions eligible as collateral in refinancing transactions through the European Central Bank.

These transactions are structured into the following stages:

a) the Parent Company, or other Group Company, transfers, *without recourse*, a pool of assets having certain characteristics to the vehicle (MPS Covered Bond S.r.l. and MPS Covered Bond 2 S.r.l), thus forming a segregated *Cover Pool*;

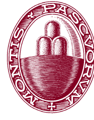
b) the Transferor grants a subordinated loan to the vehicle, for the purpose of financing payment of the assets' purchase price by the vehicle;

c) the Parent Company issues covered bonds secured by an autonomous, irrevocable and unconditional first demand guarantee issued by the vehicle for the only benefit of the bond-holding investors and senior debtors involved in the transaction; the guarantee involves limited recourse to the assets of the Cover Pool owned by the vehicle (*guarantor*).

The structure of the deal is such that the Parent Company is the transferor (a), lender (b) and issuer (c) in the transaction.

The programmes, in both cases, were structured in compliance with applicable rules and regulations which authorise the issuance of covered bonds only if the transferring and issuing banks meet certain capital requirements.

The structure of the debt issuance programmes of the Parent Company (transferor and servicer) is subject to stringent regulatory requirements and calls for continuous actions by the Specialised Credit Processes and Services Area; Finance, Treasury & Capital Management and Risk Management Areas, as well as supervision by



an external auditor (Deloitte & Touche) as asset monitors. These actions include:

- assessment of capital requirements mandated by Supervisory Instructions when it comes to covered bond issuance programmes;
- assessment of the quality and integrity of assets transferred with regard, in particular, to the estimated value of properties, both residential and non-residential, on which a mortgage in relation with the asset-backed loans is placed; this assessment may result in repurchases, integrations and additional transfers of supplemental assets;
- assessment of an appropriate ratio being maintained between bonds issued and assets transferred as collateral (Cover Pool -mortgage and residential assets; commercial assets for the second programme);
- assessment of transfer limits and integration practices;
- assessment on whether risks are effectively and adequately hedged by derivative contracts in relation to the transaction.

In order to allow the transferee to meet the obligations of the collateral pledged, the Parent Company uses appropriate Asset & Liability Management techniques to secure a trend of substantial balance between the maturities of cash flows arising from the assets sold and maturities of payments due in relation with the covered bonds issued and other costs of the transaction.

With regard to the first program, in particular, an interest rate risk mitigation strategy has been implemented over the years aimed at hedging the net exposure of the vehicle against interest rate risk. As of 31 December 2021, there are two Covered Bond Swaps in place for a total amount of € 1 billion.

The paragraphs below provide information on the nature of the risks associated with the interest in the MPS Covered Bond S.r.l. vehicle, whose *assets* are pledged as collateral of bond issues of the Parent Company partly placed with the market.

In particular, the terms of the agreements that could require the Group to provide financial support to the vehicle MPS Covered Bond S.r.l. are as follows:

- the Parent Company undertakes, in accordance with the programme's terms, to ensure compliance over time with the regulatory and contractual tests determined according to the methodologies set by the rating agencies from time to time
- if the Parent Company's rating decreases below "BBB(low)" (DBRS), "BBB-" (Fitch) and "Baa3" (Moody's), the repayment of each subordinated loan will be delayed by 6 months after the original expiry, (unless early loan repayment is necessary to allow for compliance with the maximum limit of cash that may be accumulated by the Vehicle, established by regulation as 15% of the total of the cover pool, to the extent to which it is not possible for the Vehicle to acquire new suitable assets to replace cash, pursuant to the Framework Transfer

Agreement);

- in accordance with the Master Definition Agreement, the Parent Company shall allocate and change the amount of the variable liquidity reserve according to criteria agreed upon with the rating agencies.

During the period under review the Parent Company and its subsidiaries did not provide any financial or other support without being obliged under the contract.

There are no cases of financial or other support to a previously non-consolidated structured entity as a result of which the structured entity was controlled by the Group.

The Group does not intend to provide financial or other support to the vehicle, nor to assist the entity in obtaining financial support.

Description of individual issuances

In order to support the issuances of Covered Bonds in the first programme, the Parent Company transferred a portfolio of approximately 249,515 thousand mortgages for a total value of € 25.81 bn, consisting in *performing* residential mortgages in real estate and building secured by 1st mortgages and with all instalments regularly paid as at the date of valuation of the portfolio.

Here follows a summary of the main characteristics regarding transfers in the first Programme:

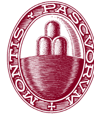
Date of sale	Portfolio	Loans Number	Amount (€/bln)
25/05/10	Mutui BMPS	36,711	4,42
19/11/10	Mutui BMPS	19,058	2,41
25/02/11	Mutui BMPS	40,627	3,89
25/05/11	Mutui BMPS (ex BAV)	26,804	2,35
16/09/11	Mutui BMPS	27,973	2,33
14/06/13	Mutui BMPS	4,259	0,42
18/09/15	Mutui BMPS	15,080	1,53
31/10/16	Mutui BMPS	7,630	0,78
22/12/16	Mutui BMPS	1,903	0,24
03/05/18	Mutui BMPS	12,401	1,32
27/02/19	Mutui BMPS	16,880	1,81
16/10/19	Mutui BMPS	12,008	1,27
15/06/20	Mutui BMPS	13,107	1,43
18/05/21	Mutui BMPS	15,074	1,67
	Total	**249,515**	**25,81**

As part of the first issuance Programme, the Parent Company completed a total of 31 issuances, 12 of which had not yet matured or been repaid early for a total, as at 31 December 2021, of € 8,200 mln, of which € 5,265.5 mln were placed on the market, while € 2,934.5 mln were repurchased by the Parent Company and by the Subsidiary Companies MPS Capital Services.

The remaining debt balance on the portfolio as at 31 December 2021 amounted to € 12,106.9 mln for 152,127 mortgages.

In 2021 the following securities were issued as part of the first Programme:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
10/06/21	1,00	3mE + 0,28%	01/07/25



With regard to the second Program, the transferred portfolio consists of residential and commercial land and mortgage loans, for a residual debt as at 31 December 2021 of 10,728.6 mln euros for 110,052 loans.

A portfolio of 12,916 residential and commercial mortgages was sold for € 1,519.8 million on 19 April 2021, while a portfolio of 14,646 residential and commercial mortgages was sold for a total of € 1,751.4 million on 30 November 2021.

Date of sale	Portfolio	Amount (€/bln)	Loans number
30/04/12	Residential Mortgages	2,38	27.047
26/06/12	Commercial Mortgages	2,47	13.993
28/08/12	Residential and Commercial Mortgages	1,40	17.353
24/09/12	Residential and Commercial Mortgages	2,47	9.870
18/02/13	Residential and Commercial Mortgages	1,29	9.033
24/06/13	Residential and Commercial Mortgages	2,15	12.771
25/03/14	Residential and Commercial Mortgages	1,46	5.645
20/10/15	Residential and Commercial Mortgages	0,98	5.671
18/07/16	Residential and Commercial Mortgages	2,01	24.162
26/08/16	Residential and Commercial Mortgages	0,81	7.211
24/03/17	Residential and Commercial Mortgages	0,79	5.799
08/05/18	Residential and Commercial Mortgages	0,69	4.718
09/11/18	Residential and Commercial Mortgages	0,47	3.002
27/09/19	Residential and Commercial Mortgages	0,73	4.549
21/02/20	Residential and Commercial Mortgages	1,03	8.625
19/04/21	Residential and Commercial Mortgages	1,52	12.916
30/11/21	Residential and Commercial Mortgages	1,75	14.646
Total		**24,42**	**187.011**

Management of the new Covered Bond Programme follows the proven processes and controls already adopted for management of

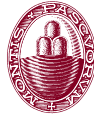
As part of the second programme, the Parent Company completed thirty-five issuances (of which 14 not yet matured or redeemed early), which were not intended for the market but repurchased by the Parent Company and used as collateral for refinancing transactions in the Eurosystem, for a total as at 31 December 2021 of € 8,450 mln.

The following issues were made in 2021:

Issuer Date	Amount (€/bln)	Coupon	Legal Final Maturity
19/01/21	0,700	3mE+0.30%	29-Jul-24
14/05/21	0,700	3mE+0.28%	29-Oct-24
22/07/21	0,700	3mE+0.27%	29-Jan-25
01/10/21	0,700	3mE+0.21%	29-Apr-24
Total	**3,30**		

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 since the Parent Company retains the risks and rewards of ownership of the loans transferred;
- the loan disbursed by the Parent to the Vehicle is not classified as a separate item in the balance sheet, since it is offset with the amount due to the Vehicle in which the initial transfer price was recognised. The loan, therefore, is not subject to credit risk assessment, because this risk is entirely reflected in the assessment of transferred loans, which continue to be reported in the Parent Company's balance sheet;



- loans are subject to movements based on own events (figures and assessment);
- instalments collected by the Parent (which also acts as a servicer) are reallocated daily to the Vehicle's "collection account" and accounted for by the Parent as follows:
  - collection of principal from borrower is recognised as an offsetting entry to the reduction in the loan to the borrower;
  - reallocation of principal to the Vehicle is recognised as an offsetting entry to the recognition of a loan to the Vehicle; this loan is paid off upon repayment of the subordinated loan;
  - interest received by borrower is recognized as an offsetting entry to account 10 "Interest income: loans to customers" (interest on loans continues to be recognised on an accrual basis);
  - reallocation of interest to the Vehicle is recognised as an offsetting entry to the recognition of a loan to the Vehicle;
  - this loan is paid off upon collection of the receive leg of the *Cover Pool Swap*.
- the Vehicle "MPS Covered Bond S.r.l." is invested in by the Parent Company for a control stake of 90%, recognised under account 100 "Equity investments" and included in the Group's consolidated financial statements under the comprehensive approach;
- the vehicle "MPS Covered Bond 2 S.r.l." is invested in by the Parent company for a control stake of 90%, recognised under Account 100 "Equity investments" and included in the Group's consolidated financial statements under the comprehensive approach;
- bonds issued are posted to Account 10 "Financial liabilities measured at amortised cost - c) debts securities issued", and related interest expense is recognized on an accrual basis.

The following tables report the Group's overall exposures in securitisations.

EU SEC1: Securitisation exposures in the non-trading book

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
		Institution acts as originator							Institution acts as sponsor				Institution acts as investor			
		Traditional				Synthetic		Sub-total	Traditional		Synthetic	Sub-total	Traditional		Synthetic	Sub-total
		STS		Non-STS			of which SRT		STS	Non-STS			STS	Non-STS		
			of which SRT		of which SRT											
1	**Total exposures**	**-**	**-**	**4,273,910**	**85,262**	**2,191,290**	**2,191,290**	**6,465,200**	**-**	**-**	**-**	**-**	**-**	**13,608**	**-**	**13,608**
2	Retail (total)	-	-	3,674,694	-	7,409	7,409	3,682,103	-	-	-	-	-	13,608	-	13,608
3	residential mortgage	-	-	3,113,699	-	-	-	3,113,699	-	-	-	-	-	13,608	-	13,608
4	credit card	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	other retail exposures	-	-	560,996	-	7,409	7,409	568,405	-	-	-	-	-	-	-	-
6	re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Wholesale (total)	-	-	599,216	85,262	2,183,880	2,183,880	2,783,097	-	-	-	-	-	-	-	-
8	loans to corporates	-	-	41,583	41,583	1,350,670	1,350,670	1,392,252	-	-	-	-	-	-	-	-
9	commercial mortgage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	lease and receivables	-	-	513,954	-	-	-	513,954	-	-	-	-	-	-	-	-
11	other wholesale	-	-	43,680	43,680	833,210	833,210	876,890	-	-	-	-	-	-	-	-
12	re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

MPS Group does not have within their traditional securitisations, ABCP programmes.

EU SEC2: Securitisation exposures in the trading book

		a	b	c	d	e	f	g	h	i	j	k	l
		Institution acts as Originator				Institution acts as Sponsor				Institution acts as Investor			
		Traditional		Synthetic	Sub-total	Traditional		Synthetic	Sub-total	Traditional		Synthetic	Sub-total
		STS	Non-STS			STS	Non-STS			STS	Non-STS		
1	**Total exposures**	-	-	-	-	-	-	-	-	-	-	-	-
2	Retail (total)	-	-	-	-	-	-	-	-	-	-	-	-
3	residential mortgage	-	-	-	-	-	-	-	-	-	-	-	-
4	credit card	-	-	-	-	-	-	-	-	-	-	-	-
5	other retail exposures	-	-	-	-	-	-	-	-	-	-	-	-
6	re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-
7	Wholesale (total)	-	-	-	-	-	-	-	-	-	-	-	-
8	loans to corporates	-	-	-	-	-	-	-	-	-	-	-	-
9	commercial mortgage	-	-	-	-	-	-	-	-	-	-	-	-
10	lease and receivables	-	-	-	-	-	-	-	-	-	-	-	-
11	other wholesale	-	-	-	-	-	-	-	-	-	-	-	-
12	re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-

In accordance with the regulatory provisions on Public Disclosures, the Group does not hold exposures to securitizations that comply with the provisions of Article 449 paragraph (j) of the CRR. Nvertheless, as of 31 December 2021, there are 96 securitisation positions in the Group's Trading Book., with a risk weighted exposure amount equal to 324,331 €/thousand.

EU SEC3: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	EU-p	EU-q
		Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
		≤ 20 % RW	RW > 20% to 50%	RW > 50% to 100%	RW > 100% to < 1250%	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions
1	**Total exposures**	**2,227,560**	**-**	**1,147**	**47,845**	**-6,879**	**2,232,872**	**-**	**43,680**	**-6,879**	**724,652**	**-**	**6,552**	**-**	**57,972**	**-**	**524**	**-**
2	Traditional transactions	43,680	-	-	41,583	-	41,583	-	43,680	-	386,493	-	6,552	-	30,919	-	524	-
3	Securitisation	43,680	-	-	41,583	-	41,583	-	43,680	-	386,493	-	6,552	-	30,919	-	524	-
4	Retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	*Of which STS*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Wholesale	43,680	-	-	41,583	-	41,583	-	43,680	-	386,493	-	6,552	-	30,919	-	524	-
7	*Of which STS*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic transactions	2,183,880	-	1,147	6,262	-6,879	2,191,290	-	-	-6,879	338,159	-	-	-	27,053	-	-	-
10	Securitisation	2,183,880	-	1,147	6,262	-6,879	2,191,290	-	-	-6,879	338,159	-	-	-	27,053	-	-	-
11	Retail underlying	-	-	1,147	6,262	-	7,409	-	-	-	11,609	-	-	-	929	-	-	-
12	Wholesale	2,183,880	-	-	-	-6,879	2,183,880	-	-	-6,879	326,550	-	-	-	26,124	-	-	-
13	Re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

EU SEC4: Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	EU-p	EU-q
		Exposure values (by RW bands/deductions)					Exposure values (by regulatory approach)				RWEA (by regulatory approach)				Capital charge after cap			
		≤ 20 % RW	RW > 20% to 50%	RW > 50% to 100%	RW > 100% to < 1250%	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions	SEC-IRBA	SEC-ERBA (including IAA)	SEC-SA	RW 1250% / deductions
1	**Total exposures**	**2,691**	**-**	**-**	**10,917**	**-**	**-**	**13,608**	**-**	**-**	**-**	**16,115**	**-**	**-**	**-**	**1,289**	**-**	**-**
2	Traditional transactions	2,691	-	-	10,917	-	-	13,608	-	-	-	16,115	-	-	-	1,289	-	-
3	Securitisation	2,691	-	-	10,917	-	-	13,608	-	-	-	16,115	-	-	-	1,289	-	-
4	Retail underlying	2,691	-	-	10,917	-	-	13,608	-	-	-	16,115	-	-	-	1,289	-	-
5	*Of which STS*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	*Of which STS*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic transactions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Re-securitisation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

EU SEC5: Exposures securitised by the institution - Exposures in default and specific credit risk adjustments

		a	b	c
		Exposures securitised by the institution - Institution acts as originator or as sponsor		
		Total outstanding nominal amount		Total amount of specific credit risk adjustments made during the period
			Of which exposures in default	
1	**Total exposures**	**27,539,721**	***20,957,134***	**-**
2	Retail (total)	3,895,990	*234,345*	-
3	residential mortgage	3,289,412	*212,865*	-
4	credit card	-	-	-
5	other retail exposures	606,578	*21,480*	-
6	re-securitisation	-	-	-
7	Wholesale (total)	23,643,731	*20,722,789*	-
8	loans to corporates	22,136,508	*20,657,885*	-
9	commercial mortgage	-	-	-
10	lease and receivables	513,954	*63,410*	-
11	other wholesale	993,269	*1,494*	-
12	re-securitisation	-	-	-

Annex XXIX - Disclosure of the use of standardised approach and internal model for market risk

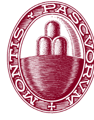
EU MRA: Qualitative disclosure requirements related to market risk

The Group's Regulatory Trading Portfolio (RTP), or Trading Book, is made up of all the Regulatory Trading Books managed by the Parent Company (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.

For the Parent Company, the use of Trading Portfolios is not only essential for ordinary securities transactions, but also for Treasury hedging activities for transactions with customers and to provide yield enhancement, protection and support for the profitability of the Banking Portfolio. The subsidiary MPSCS uses the Trading Books for: liquidity providing/market making activities in markets involved in operations with customers; the offer of products and services for corporate and institutional customers (bancassurance products, hedging derivatives, structured bonds and certificates) with active risk management through risk warehousing; proprietary trading represented by typically short/medium-term strategies, limited to liquid instruments with low transaction costs. 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 the Risk Management Unit 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 based on 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.

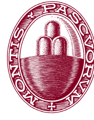
The macro-categories of risk factors covered by the Internal Market Risk Model are IR, EQ, CO, FX and CS as described below:

- 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*.

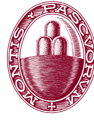
Moreover, scenario and stress-test analyses are regularly conducted on various risk factors with different degrees of granularity across the entire tree structure of the Group's portfolios and for all categories of instruments analysed.

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, for "financial assets necessarily measured at fair value", "financial assets measured at fair value through comprehensive income" and in portfolios for "financial assets measured at amortised cost"). The Group has implemented a backtesting procedure *compliant* with current regulations governing Market Risk as part of its own risk management system.

Backtesting refers to a series of tests conducted on VaR model results against day-to-day changes in the trading book value, with a view to assessing the model's forecasting capacity as regards the accuracy of risk metrics generated. If the model is robust, by periodically comparing the estimated daily VaR against daily trading losses from the previous day, the result should be that actual losses greater than the VaR occur with a frequency consistent with that defined by the confidence level.

Based on applicable regulatory provisions, the Financial Risk Officer Area has considered it appropriate to perform the test using actual backtesting methods and integrate these into the Group's management reporting system.

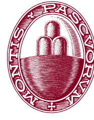
The **Actual backtesting** meets the need for verifying the VaR model's forecasting reliability in reference to actual Bank operations (daily trading P&L) less the effect of any interest accrued between trading days t-1 and t on the securities and less the effect of fees and commissions.

These "clean" P&L results (the "actual P&L") are compared with the previous trading day VaR. If the losses are greater than those forecast by the model an "exception" is recorded.

Each bank of the MPS Group which is relevant as a *market risk-taking centre* contributes to the generation of interest rate risk and price risk in the overall Trading Book.

With reference specifically to the Parent Company, the Finance, Treasury & Capital Management Unit 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.*

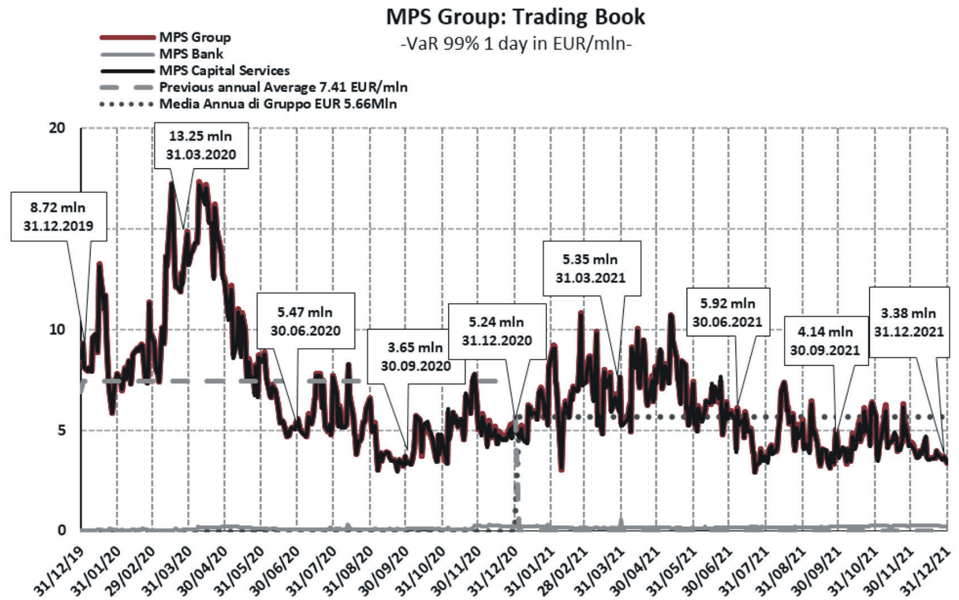
In 2021, the market risks of the Group's Regulatory Trading Book showed, in terms of VaR, a performance essemtially determined by the subsidiary MPS Capital Services, mainly for own trading activities in the CS-IR segment (transactions in Italian government bonds and long futures) and, to a lesser extent, for client-driven activities in the EQ segment (options and equity futures on the main market indices) linked to the structuring of bancassurance products. The Parent Company's portfolio contribution to total VaR was negligible.

Following the tensions triggered by the Covid 19 pandemic that affected the first half of the previous year, the financial markets in 2021 benefitted from the accommodative policies of central banks and from the economic support plans of the United States and the European Union. The favourable context led to an adjustment of the risk factors underlying the VaR model, contributing to greater stability of the risk metrics.

VaR volatility during the year resulted from the auctions of Italian government bonds by the subsidiary MPS Capital Services as primary dealer, with temporary variations in the exposure to the Italy CS risk, mainly in the short term.

Despite some temporary increases in exposure during the already-mentioned auctions carried out as primary dealer, the

average Italian sovereign bonds held in the Group's trading portfolios remained essentially stable during the year (EUR 4.1 billion in nominal value), with a decrease to lower levels in December, resulting in a reduction in the CS factor's contribution to overall VaR, which by the end of 2021 had fallen to the lowest levels for the year.

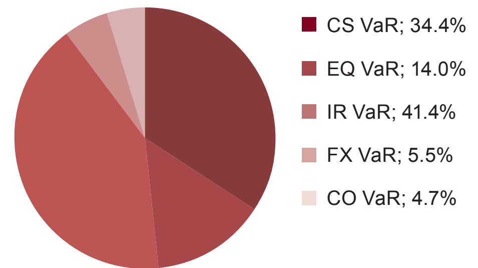


VaR breakdown

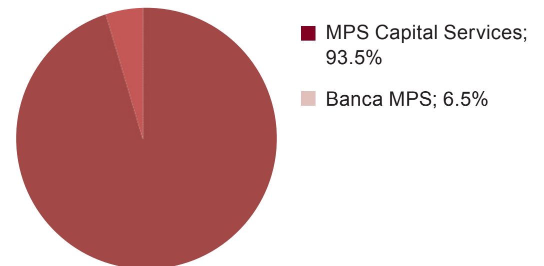
A breakdown of VaR by risk factors shows that 41.4% of the Group's portfolio was allocated to credit-spread risk factors (CS VaR), 34.4% was absorbed by interest rate risk factors (IR VaR), 14.0% by equity risk factors (EQ VaR), 5.5% by foreign exchange risk factors (FX VaR), and the remaining 4.7% by commodity risk factors (CO VaR).

With regard to the legal entities, MPS Capital Services accounted for 93.5% and the Parent Company for 6.5% of overall risk as at 31 December 2021.

MPS Group: Trading Book
VaR by Risk Factor as at 31/12/2021



MPS Group: Trading Book
VaR by Bank as at 31/12/2021



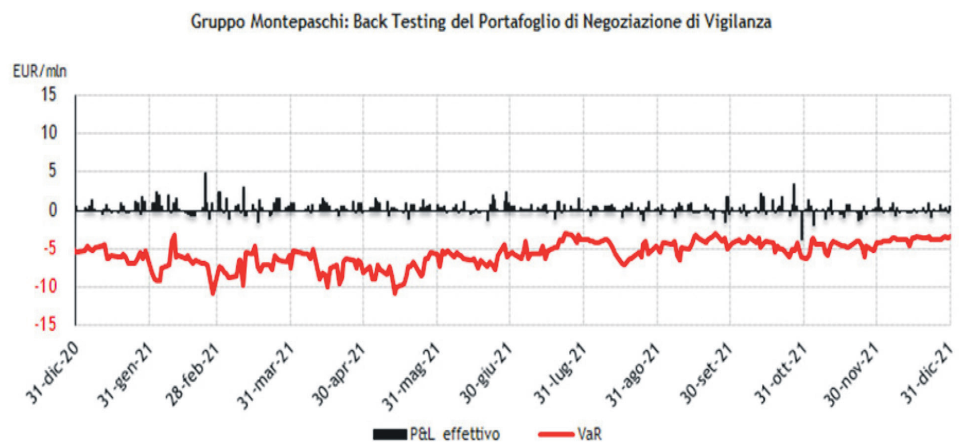
Group VaR

In 2020, the Group's VaR in the RegulatoryTrading Book ranged between a low of EUR 2.96 mln recorded on 22 July 2021 and a high of EUR 10.79 mln on 25 Febrary 2021 with an average value registered of EUR 5.66 mln. The Regulatory Trading Book VaR as at 31 December 2021 amounted to EUR 3.38 mln.

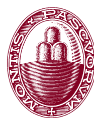
MPS Group: Trading Book VaR 99% 1 day in EUR/mln

	VaR	Date
End of Period	3,38	31/12/2021
Min	2,96	22/07/2021
Max	10,79	25/02/2021
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.

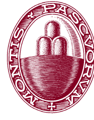


Back testing shows no exceptions during 2021.



EU MR1: Market risk under the standardised approach

	Dec-21	
	a	b
	RWA	Capital requirements
Interest rate risk (generic and specific)	1,504,894	120,391
Equity risk (generic and specific)	557,004	44,560
Exchange risk	145,251	11,620
Commodity risk	111,442	8,915
Options		
Simplified Method	-	-
Delta-Plus Method	81,193	6,495
Scenario Method	-	-
Securitisation (specific risk)	324,331	25,946
Total	**2,724,114**	**217,929**



Annex XXXI - Disclosure of operational risk

EU ORA: Qualitative information on operational risk

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).

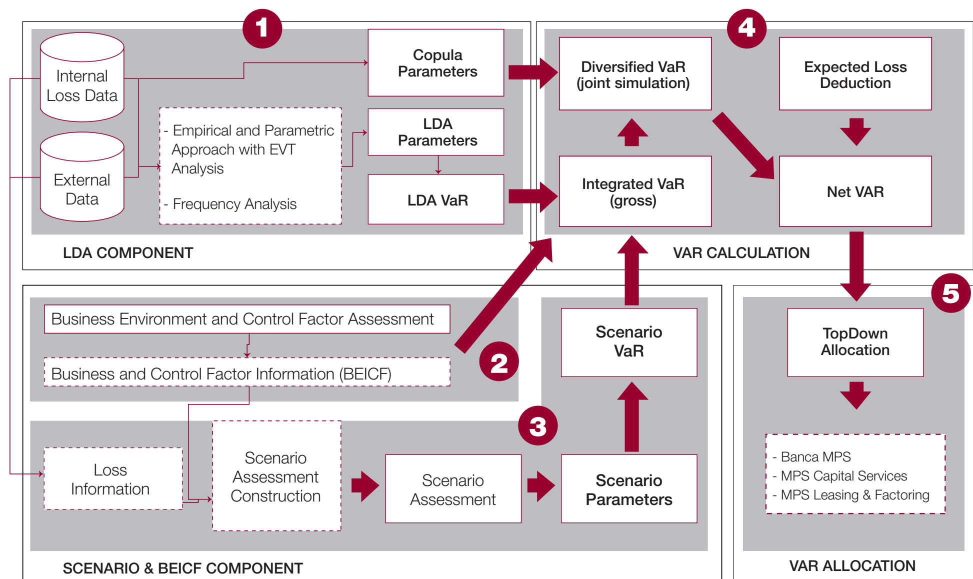
The quantitative *Loss Distribution Approach* component is based on the statistical collection, analysis and modelling of internal and external historical loss data (Italian Database of Operational Losses, DIPO). The model includes calculation in relation to the 7 categories of events established by 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

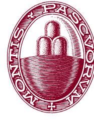
since this has not yet been authorized by the supervisor.

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 2021 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;



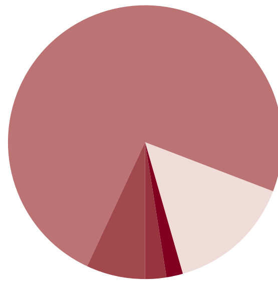
- Property damage: losses arising from external events, including natural disasters, acts of terrorism or vandalism;
- Business disruptions and system failures: losses due to business disruption or system failures or interruption;
- Process management, execution and delivery: losses arising from operational and process management shortfalls, as well from transactions with business counterparties, vendors and suppliers.

As at 31 December 2021 the number of operational risk events and the losses risultano in diminuzione rispetto a dicembre 2020.

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 74% of the total) and to shortcomings in the completion of operations or process management (category "Execution, delivery and process management": 14% of the total).

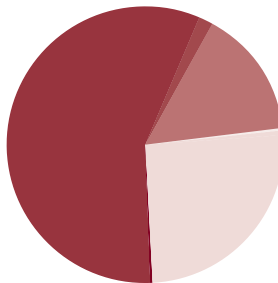
As far as the violation of professional obligations towards customers is concerned, the events mainly refer to disputes over the application of compound interest rates and to disputes pending in relation to the share capital increases made in the previous years. For further information, please refer to the **Notes to the Consolidated Financial Statements** - *Part E – Information on risks and hedging policies – Section 2 – Risk of prudential consolidation, 1.5 – Operational Risks*.

Events breakdown
Montepaschi Group - 31/12/2021



- Internal Fraud: 2%
- External Fraud: 2,7%
- Employment Relationships: 6,8%
- Customers, products and operating practices: 74,1%
- Property damage: <0,1%
- Business disruptions and system failures: 0,1%
- Process management, execution and delivery: 14,3%

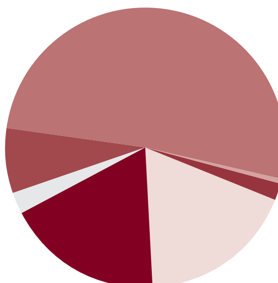
Losses breakdown
Montepaschi Group - 31/12/2021



- Internal Fraud: 0,5%
- External Fraud: 56,8%
- Employment Relationships: 1,7%
- Customers, products and operating practices: 15,1%
- Property damage: <0,1%
- Business disruptions and system failures: 0,6%
- Process management, execution and delivery: 25,2%

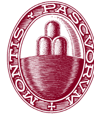
The graph below shows the breakdown of regulatory requirements by class of risk:

Regulatory Capital Requirements
Montepaschi Group - 31/12/2021



- Internal Fraud: 18,3%
- External Fraud: 2,4%
- Employment Relationships: 7,5%
- Customers, products and operating practices: 51,4%
- Property damage: 0,4%
- Business disruptions and system failures: 1,9%
- Process management, execution and delivery: 18%

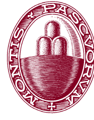
The Regulatory Requirement as at 31 December 2021 decreased slightly compared to December 2020, following the updating of the historical series of internal loss data and the settlement of certain disputes. The breakdown of operational losses clearly differs from the breakdown of capital in that the latter is calculated using a 10-year time series and the incidence of the unexpected loss component prevails.



EU OR1: Operational risk own funds requirements and risk-weighted exposure amounts

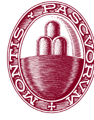
		a	b	c	d	e
	Banking activities	Relevant indicator			Own funds requirements	Risk weighted exposure amount
		Year-3	Year-2	Last year		
1	**Banking activities subject to basic indicator approach (BIA)**	**43,895**	**39,967**	**45,303**	**6,458**	**80,728**
2	**Banking activities subject to standardised (TSA) / alternative standardised (ASA) approaches**	-	-	-	-	-
3	*Subject to TSA:*	-	-	-		
4	*Subject to ASA:*	-	-	-		
5	**Banking activities subject to advanced measurement approaches AMA**	**3,108,809**	**2,760,708**	**2,321,993**	**869,493**	**10,868,665**

The basic method is used to calculate own funds for smaller domestic subsidiaries and the foreign company. The relevant indicator is determined from the consolidated balance sheet data. No extraordinary corporate structure transactions have been reported during the last three years.



Annex XXXIII - Informativa sulla politica di remunerazione

For information regarding the Remuneration Policy, please refer to the Remuneration Report at https://www.gruppomps.it/corporate-governance/remunerazione.html



Annex XXXV - Disclosure of 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*.

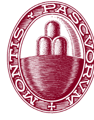
Business financing strategies are based on the principle of diversification and are aimed at establishing an optimum *funding mix* in terms of supply channels, costs, maturities, stability of sources.

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.

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 n. 575/2013 (CRR), as supplemented by the Delegated Regulation (EU) 637/2021 of 15 march 2021. 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 derivative 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.

There are no differences in the scope of regulatory consolidation used for the purposes of this disclosure and the scope used for the application of liquidity requirements on a consolidated basis (in accordance with CRR Part Two, Title I, Chapter 2) for the purposes of defining the eligibility of EHQLAs and HQLAs.

Banca Monte dei Paschi di Siena and MPS Capital Services are the main contributors to the entire structure of encumbrances at

consolidated level, and the most significant intra-group encumbrances also exist between them.

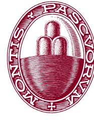
The table below reports the amount of encumbered and unencumbered assets by asset type in compliance with Regulation 637/2021 of 15 March 2021 and based on the median values of the quarterly data[1]. The encumbered assets are: on-balance sheet assets that have been either pledged or transferred without 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.

EU AE1: Disclosure of encumbered and unencumbered assets

		Dec-21							
		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
010	**Assets of the reporting institution**	**54,401,509**	**14,542,694**			**88,688,930**	**3,105,024**		
030	Equity instruments	-	-	-	-	580,305	-	580,312	-
040	Debt securities	16,883,358	14,542,694	17,033,173	15,564,069	5,389,358	2,980,439	5,383,324	2,982,640
050	of which: covered bonds	658,631	-	604,621	-	95	-	95	-
060	of which: asset-backed securities	951,838	-	958,738	-	1,279,792	-	1,283,739	-
070	of which: issued by general governments	14,453,150	13,919,177	14,639,186	13,317,328	3,284,936	2,842,297	3,288,154	2,844,672
080	of which: issued by financial corporations	2,156,539	-	2,110,827	-	1,929,635	3,154	1,919,854	3,143
090	of which: issued by non-financial corporations	209,002	47,056	219,957	47,052	186,933	11,859	183,191	11,775
120	Other assets	37,646,978	-			82,755,877	12,425		

Line 120 includes demand financing, non-demand financing and other assets. Restricted assets consist solely of non-discounted loans used primarily for Eurosystem refinancing operations, covered bond issues and securitisations.

[1] It should be noted that there are no sources of encumbrance in any other significant currency other than the currency used for reporting, pursuant to Article 415(2) of the CRR.

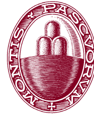


EU AE2: Collateral received and own debt securities issued

		Dec-21			
		Fair value of encumbered collateral received or own debt securities issued		Unencumbered	
				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
		010	030	040	060
130	**Collateral received by the reporting institution**	**6,582,458**	**6,355,076**	**1,413,200**	**1,130,591**
140	Loans on demand	-	-	-	-
150	Equity instruments	30,263	-	20,750	-
160	Debt securities	6,552,195	6,355,076	1,393,553	1,130,591
170	*of which: covered bonds*	*1,718*	-	*1,742*	-
180	*of which: asset-backed securities*	*184*	-	*3,105*	-
190	*of which: issued by general governments*	*6,443,974*	*6,350,318*	*1,258,109*	*1,129,092*
200	*of which: issued by financial corporations*	*98,715*	*3,955*	*118,370*	*486*
210	*of which: issued by non-financial corporations*	*7,467*	*1,144*	*39,664*	*1,342*
220	Loans and advances other than loans on demand	-	-	-	-
230	Other collateral received	-	-	-	-
240	**Own debt securities issued other than own covered bonds or asset-backed securities**	-	-	-	-
241	**Own covered bonds and asset-backed securities issued and not yet pledged**			**3,101,610**	-
250	**Total assets, collateral received and own debt securities issued**	**61,358,494**	**24,430,778**		

EU AE3: Sources of encumbrance

		Dec-21	
		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	**Carrying amount of selected financial liabilities**	**46,620,593**	**55,703,941**



EU AE4: Accompanying narrative information

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*.

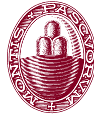
Business financing strategies are based on the principle of diversification and are aimed at establishing an optimum *funding mix* in terms of supply channels, costs, maturities, stability of sources.

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.

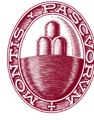
These *assets* are mainly used for the following:

- 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.



Annex XXXVII - Disclosure on exposures to interest rate risk on positions not held in the trading book (EBA/ CP/2021/20) (Annex I-Annex XXXVII)

EU IRRBBA – Qualitative information on interest rate risk of non-trading book activities.

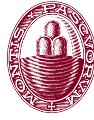
The Group adopts an interest rate risk governance and management system known as the 'IRRBB Framework' which uses of:

- a quantitative model, which provides the basis for monthly calculation of the exposure of the Group and the individual companies to interest rate risk in terms of risk indicators;
- risk monitoring processes, aimed at periodically verifying compliance with the operational limits assigned to the Group overall and to the individual legal entities;
- risk control and management processes finalized to adequate initiatives for optimising the risk profile and activating any necessary corrective actions.

Within the above system, definition of policies for managing the Group's Banking Book and controlling its interest rate risk are centralised in the Parent Company: The Banking Book consists of all exposures not included in the Trading Book and, in accordance with international best practices, identifies the set of the Group's commercial trades connected to the transformation of maturities in the assets and liabilities and ALM financial activities (treasury and risk hedging derivatives).

The strategic objectives for the management of interest rate risk in the Banking Book, based on interest rate measures (express in terms of variation in both economic value and in net interest income) in compliance with the operational limits and strategic KRIs, are set, at least once a year, in the IRRBB Strategy document submitted by the Finance Function – subject to the prior opinion of the Finance and Liquidity Committee – for the approval of the Board of Directors of the Parent Company, as established by corporate regulations. The pursuit of the objectives is operationally managed by the Finance Function, which reports monthly to the Finance and Liquidity Committee on any changes in the metrics, the market situation, any transactions performed as well as the situation regarding existing hedges. Risk Appetite and Risk Tolerance thresholds on IRRBB metrics are set within the Risk Appetite Statement. Operational limits are then defined in terms of internal capital and IRRBB metrics (Delta EVE, Delta NII, and Basis Risk). Specific limits are also set at individual level. A formalized escalation process ensures verification of compliance with the delegated limits and adequate information to top management in the event of any breach.

The Bank also defines strategic KRIs for the



management of IRRBB, expressed in terms of “appetite” and approved by the Board of Directors, to monitor the proper pursuit of the strategy.

The metrics and limits are monitored monthly and, together with ongoing monitoring of the market situation, represent the main tool for defining operational asset and liability management choices.

Moreover, the IRRBB framework is periodically and regularly subjected to internal audits and validation checks, to guarantee the continuous pursuit of correctness of the processes, calculation methods and estimation of the behavioural models.

The periodicity of calculation of internal metrics is monthly, while for regulatory metrics it is quarterly (STE). In both cases, the discounting curve is the EUR6M curve, while the specific curves for each benchmark are used for the forecasting process. In the Group’s IRRBB framework, the economic value sensitivity measures are processed by clearing the origination of the cash flows of the components not directly relating to interest rate risk. Non-performing loans entries are considered net of their credit impairment.

In the development of internal metrics, the Montepaschi Group applies a predefined set of interest rate scenarios to capture a wide range of curve dynamics, including both parallel shift of different magnitudes and changes in the shape of the yield curve.

With reference to the regulatory measures produced, the scenarios are constructed in accordance with the provisions of the EBA Guidelines (EBA/GL/2018/02). In particular, for the sensitivity measures of the economic value, six scenarios of Parallel up, Parallel down, Steepener, Flattener, Short rates up and Short rates down are used.

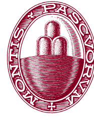
Also, with reference to the calculation of internal metrics, an additional set of scenarios constructed from historical rate data is used. The internal scenarios differ from the regulatory scenarios in terms of different magnitudes and minimum rate levels.

The analysis of net interest income, given that the measure focuses on the short term, exclusively involves the application of parallel scenarios with reference to both the regulatory and internal measures.

Regarding the differences between internal and regulatory measures, it should be noted that, with reference to the economic value, the sensitivity of the various currencies (moreover, the concentration is almost exclusively on euros), produced within the scope of internal metrics, are aggregated without applying any weighting.

IRRBB is managed through the hedging of asset and liability items.

Hedges are carried out on fixed-rate mortgages, the optional components of floating-rate mortgages, bonds on the assets side, fixed-rate paper funding and fixed-rate deposit accounts at maturity. By managing



these hedges, the Finance department pursues the risk objective (in terms of delta EVE, delta NII, Basis Risk) established by the IRRBB strategy approved by the Board of Directors. The hedges are linked by hedge accounting to the items covered: the approach is of a macro type for commercial items and of a micro type for paper liabilities and securities in the assets.

Risk metrics are calculated by using a model for the valuation of demand items (Non-Maturity Deposits, NMDs) whose characteristics of stability and partial insensitivity to interest rate changes are described in the systems with a statistical approach based on the time series of customer behaviours.

The methodology is divided into two profiles to which correspond two distinct and integrated analyses:

- Rate Analysis: To describe the relationship between the remuneration rates of the on-demand items with respect to a short-term market parameter (elasticity)
- Volume analysis: To represent the behavioural maturity of the on-demand items, highlighting the high degree of persistence of the aggregates (stability). The volume analysis translates the amount of on-demand items into a portfolio of amortising items at maturity.

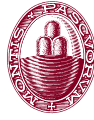
The model for on-demand items is developed through econometric analyses relating to individual customer clusters defined through an appropriate segmentation analysis. The average duration of repricing aggregated for total on-demand deposits (for retail and wholesale non-financial counterparties) is 1.83 years (4.48 years considering only the non-elastic core component). Modelled demand deposits report a maximum maturity of 16 years. The Montepaschi Group also uses a scenario-dependent behavioural model based on survival analysis for the cluster of Banca MPS fixed-rate performing retail residential mortgages and a simplified CPR (Constant Prepayment Rate) model for the residual part of the Parent Company's mortgages. Both approaches are defined based on the time series available internally.

The Montepaschi Group also uses a simplified CTDRR (Constant Time Deposits Redemption Rate) model to factor in the early repayments on the Parent Company's fixed-rate time deposits.

It should be noted that the Group

- continuously and carefully monitors the various characteristics of the overall risk profile, partly due to the presence of contractual optionality, which makes the risk profile more dependent on market trends and on interest rates and the related volatility,
- is committed to the constant updating of risk measurement methods, through the progressive refinement of estimation models, to capture the main phenomena that gradually modify the interest rate risk profile of the banking book.

Based on the foregoing and reiterating that



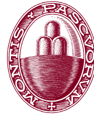
the Group's exposure is almost entirely allocated to the euro, below is the Group's position (in euros) at December 2021 compared with the position at June 2021.

Regarding the changes in sensitivity against June 2021, particular attention is drawn to the impact on the measures (evident in the parallel-down scenario) resulting from the change in market parameters, primarily the term structure of interest rates.

EU IRRBB1: Interest rate risks of non-trading book activities

	Supervisory shock scenarios	a	b	c	d
		Changes of the economic value of equity (*)		Changes of the net interest income	
		Dec-21	Jun-21	Dec-21	Jun-21
1	Parallel up*	61,819	52,327	124,797	197,649
2	Parallel down	-146,013	-13,523	-32,842	-61,013
3	Steepener	56,640	11,205		
4	Flattener*	-231,272	-143,926		
5	Short rates up	-166,358	-97,444		
6	Short rates down	-100,847	-80,988		

(*) *It should be noted that the value shown in columns A and B (Changes of the economic value) uses the currency aggregation rules provided for in the STE template. In internal metrics, this weighting is not applied.*



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, Luigi Lovaglio, declares that:

a) the risk management systems, including liquidity risk, put in place by the Parent Company and described in the document "Pillar 3 Disclosure: update as at 31 December 2020" are in line with the Banking institution's profile and strategy;

b) the section, "Executive Summary", of the same document provides a summary description of the Montepaschi Group's overall risk profile, including liquidity risk, in relation to the company strategy adopted;

c) the process of preparing and auditing the Pillar 3 public disclosure complies with the internal control procedures and processes approved by the Board of Directors.

Siena, 2 marzo 2022

Luigi Lovaglio

Amministratore Delegato

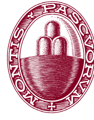
Declaration of the Financial Reporting Officer

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, 2 Marzo 2022

Nicola Massimo Clarelli

Financial Reporting Officer



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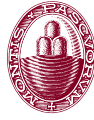

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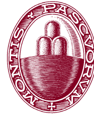

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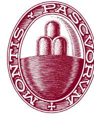

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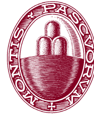

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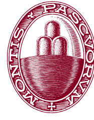
EU LIQA	Liquidity risk management	Disclosure of liquidity requirements	XIII
EU LIQ1	Quantitative information of LCR		
EU LIQB	Qualitative information on LCR, which complements template EU LIQ1		
EU LIQ2	Net Stable Funding Ratio		



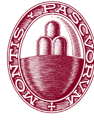
Appendix 1 – Details of Information provided in compliance with EBA/ ITS/2020/04

		Pillar 3 disclosure - 31 December 2021	*Annex*
EU CRA	General qualitative information about credit risk	Disclosure of exposures to credit risk, dilution risk and credit quality	XV
EU CRB	Additional disclosure related to the credit quality of assets		
EU CR1	Performing and non-performing exposures and related provisions		
EU CR1-A	Maturity of exposures		
EU CR2	Changes in the stock of non-performing loans and advances		
EU CR2-A [2]	Changes in the stock of non-performing loans and advances and related net accumulated recoveries		
EU CQ1	Credit quality of forborne exposures		
EU CQ2 [2]	Quality of forbearance		
EU CQ3	Credit quality of performing and non-performing exposures by past due days		
EU CQ4 [3]	Quality of non-performing exposures by geography		
EU CQ5	Credit quality of loans and advances by industry		
EU CQ6 [2]	Collateral valuation - loans and advances		
EU CQ7	Collateral obtained by taking possession and execution processes		
EU CQ8 [2]	Collateral obtained by taking possession and execution processes – vintage breakdown		
EU CRC	Qualitative disclosure requirements related to CRM techniques	Disclosure of the use of credit risk mitigation techniques	XVII
EU CR3	CRM techniques overview: Disclosure of the use of credit risk mitigation techniques		
EU CRD	Qualitative disclosure requirements related to standardised model	Disclosure of the use of the standardised approach	XIX
EU CR4	Standardised approach – Credit risk exposure and CRM effects		
EU CR5	Standardised approach		
EU CRE	Qualitative disclosure requirements related to IRB approach	Disclosure of the use of the IRB approach to credit risk	XXI
EU CR6-A	Scope of the use of IRB and SA approaches		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Exposures to or secured by corporates - SMEs		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Exposures to or secured by corporates – Other companies		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Retail exposures secured by real estate - SMEs		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Retail exposures secured by real estate - Individuals		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Retail Exposures - Qualifying revolving		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: IRB Approach: Retail Exposures - SMEs		
EU CR6-B	IRB approach – Credit risk exposures by exposure class and PD range: Retail Exposures - Individuals		

(1) Not applicable for the Group as it is not included in the list of financial conglomerates at 31 December 2021

(2) Not applicable for the Group as the NPL ratio < 5% as at 31 December 2021.

(3) Not applicable for the Group as international originating exposures in all countries in all exposure classes are less than 10 % of total originating exposures (domestic and international)



Appendix 1 – Details of Information provided in compliance with EBA/ ITS/2020/04

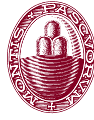
		Pillar 3 disclosure - 31 December 2021	Annex
EU CR7 [4]	IRB approach – Effect on the RWEAs of credit derivatives used as CRM techniques	Disclosure of the use of the IRB approach to credit risk	XXI
EU CR7-A	IRB approach – Disclosure of the extent of the use of CRM techniques		
EU CR8	RWEA flow statements of credit risk exposures under the IRB approach		
EU CR9	IRB approach – Back-testing of PD per exposure class (fixed PD scale)		
EU CR9.1[5]	IRB approach – Back-testing of PD per exposure class		
EU CR10.1	Specialised lending - Project finance (Slotting approach)	Disclosure of specialised lending and equity exposure under the simple risk weight approach	XXIII
EU CR10.2	Specialised lending: Income-producing real estate and high volatility commercial real estate (Slotting approach)		
EU CR10.3	Specialised lending: Object finance (Slotting approach)		
EU CR10.4 [6]	Specialised lending: Commodities finance (Slotting approach)		
EU CR10.5 [6]	Equity exposures under the simple risk-weighted approach		
EU CCRA	Qualitative disclosure related to CCR	Disclosure of exposures to counterparty credit risk	XXV
EU CCR1	Analysis of CCR exposure by approach		
EU CCR2	Transactions subject to own funds requirements for CVA risk		
EU CCR3	Standardised approach – CCR exposures by regulatory exposure class and risk weights		
EU CCR4.1	IRB approach – CCR exposures by exposure class and PD scale: corporate		
EU CCR4.2	IRB approach – CCR exposures by exposure class and PD scale: retail		
EU CCR5	Composition of collateral for CCR exposures		
EU CCR6	Credit derivatives exposures		
EU CCR7 [7]	RWEA flow statements of CCR exposures under the IMM		
EU CCR8	Exposures to CCPs		
EU SECA	Qualitative disclosure requirements related to securitisation exposures	Disclosure of exposures to securitisation positions	XXVII
EU SEC1	Securitisation exposures in the non-trading book		
EU SEC2	Securitisation exposures in the trading book		
EU SEC3	Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as originator or as sponsor		
EU SEC4	Securitisation exposures in the non-trading book and associated regulatory capital requirements - institution acting as investor		
EU SEC5	Exposures securitised by the institution - Exposures in default and specific credit risk adjustments		

(4) Not significant as the Group does not use derivatives as part of CRM techniques or for insignificant amounts

(5) Not applicable

(6) Not reported as the Group as at 31 December 2021 does not present the case

(7) Not applicable as the Group does not use internal models to calculate the requirements for market and counterparty risks

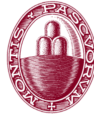


Appendix 1 – Details of Information provided in compliance with EBA/ ITS/2020/04

		Pillar 3 disclosure - 31 December 2021	*Annex*
EU MRA	Qualitative disclosure requirements related to market risk	Disclosure of the use of the standardised approach and of the internal models for market risk	XXIX
EU MR1	Market risk under the standardised approach		
EU MRB [7]	Qualitative disclosure requirements for institutions using the internal Market Risk Models		
EU MR2-A [7]	Market risk under the internal Model Approach (IMA)		
EU MR2-B [7]	RWA flow statements of market risk exposures under the IMA		
EU MR3 [7]	IMA values for trading portfolios		
EU MR4 [7]	Comparison of VaR estimates with gains/losses		
EU ORA	Qualitative information on operational risk	Disclosure of operational risk	XXXI
EU OR1	Operational risk own funds requirements and risk-weighted exposure amounts		
EU REMA [8]	Remuneration policy	Disclosure of remuneration policy	XXXIII
EU REM1 [8]	Remuneration awarded for the financial year		
EU REM2 [8]	Special payments to staff whose professional activities have a material impact on institutions' risk profile (identified staff)		
EU REM3 [8]	Deferred remuneration		
EU REM4 [8]	Remuneration of 1 million EUR or more per year		
EU REM5 [8]	Information on remuneration of staff whose professional activities have a material impact on institutions' risk profile (identified staff)		
EU AE1	Encumbered and unencumbered assets	Disclosure of encumbered and unencumbered assets	XXXV
EU AE2	Collateral received and own debt securities issued		
EU AE3	Sources of encumbrance		
EU AE4	Accompanying narrative information		

(7) Not applicable as the Group does not use internal models to calculate the requirements for market and counterparty risks

(8) See Remuneration Policies



Appendix 2 - Details of Information provided in compliance with EBA Guidelines GL/2020/12

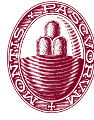
		Pillar 3 disclosure - 31 December 2021	*Annex*
Template IFRS 9/ Article 468-FL	Comparison of institutions' own funds and capital and leverage ratios with and without the application of transitional arrangements for IFRS 9 or analogous ECLs, and with and without the application of the temporary treatment in accordance with Article 468 of the CRR	Disclosure of key metrics and overview of risk-weighted exposure amounts	I

Appendix 3 - Details of Information provided in compliance with EBA CP/2021/20

		Pillar 3 disclosure - 31 December 2021	*Annex*
EU IRRBBA	Qualitative information on interest rate risk of non-trading book activities.	Disclosure of information on exposures to interest rate risk on positions not held in the trading book	XXXVII
EU IRRBB1	Interest rate risks of non-trading book activities	Instructions for interest rate risk of non-trading book activities	

Appendix 4 - Details of Information provided in compliance with EBA Guidelines EBA/GL/2020/07

		Pillar 3 disclosure - 31 December 2021	*Annex*
Template 1	Information on loans and advances subject to legislative and non-legislative moratoria	Disclosure of credit risk quality	XV
Template 2	Breakdown of loans and advances subject to legislative and non-legislative moratoria by residual maturity of moratoria		
Template 3	Information on newly originated loans and advances provided under newly applicable public guarantee schemes introduced in response to COVID-19 crisis		



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.

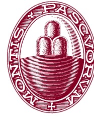
ALM (Asset & Liability Management): the set of risk management models and techniques applied to the Banking Book for the purpose of measuring interest rate risk and liquidity risk. See also Banking Book, Interest Rate Sensitivity, Shift Sensitivity, Economic Value Approach.

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).

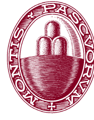
Best practices: It generally identifies conduct in line with state-of-art skills and techniques in a given technical/professional area

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.

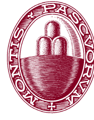
Combined buffer requirement: It means the total Common Equity Tier 1 capital required to meet the requirement for the capital conservation buffer extended by the following, as applicable:

(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:

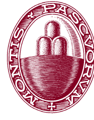
- credit and financial derivative instruments traded Over the Counter (OTC);
- Securities Financing Transactions (SFT);
- Long Settlement Transactions (LST).

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.

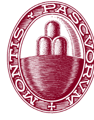
Deferred Tax Assets (DTA) that rely on future profitability: deferred tax assets, the future value of which may be realised in the event the institution generates taxable profit in the future. They are divided between DTAs arising from temporary differences and DTAs not arising from temporary differences (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.

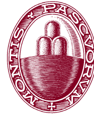
Expected Loss (EL): the total amount of net losses which, on average, the bank can expect (estimate) to incur in the 12 month period following the date of reference on the total amount of performing loans in the portfolio upon measurement. Estimated ex-ante as the "cost of doing business", it ought to 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.

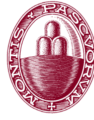
G-SII buffer: Mandatory capital buffer for banks that are identified by the relevant authority as globally systemically important institutions (G-SIIs) to compensate for the higher risk they pose to the global financial system and for potential impact of their failure.

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.

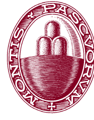
Investment grade: issuers or issues with a rating between AAA and BBB-.

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".

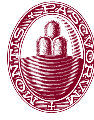
Liquidity Risk: the risk that a company will be unable to meet its payment obligations due to its inability to liquidate assets or obtain adequate funding from the market (funding liquidity risk) or due to the difficulty/impossibility of rapidly converting financial assets into cash without negatively 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.

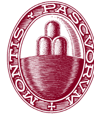
Mark-to-market: valuation of a position at market value, usually from the trading book. For instruments officially traded on organised markets, it corresponds daily to the market closure price. For unlisted instruments, it results from the development and the application of specifically- developed pricing 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).

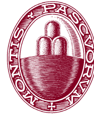
Own Funds: sum of Tier 1 (T1) and Tier 2 (T2) Capital.

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.

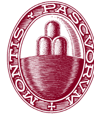
Pillar 2 Requirement (P2R): Binding capital requirements for risks underestimated or not covered by Pillar 1, which can have direct legal consequences for banks.

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").

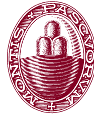
RAPM: cfr. Risk Adjusted Performance Measurement.

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.

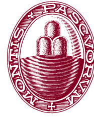
Seniority: Level of subordination regarding the repayment of notes, generally broken down (in decreasing order) into SuperSenior, Senior, Mezzanine, Junior.

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.

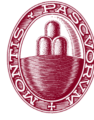
Total SREP Capital Requirement (TSCR)
It is the sum of the bank's P2R and the capital requirements set out in Article 92 of the CRR ("Pillar 1 Requirements").

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.

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