6. Credit risk mitigation techniques

6.1. ELIGIBILITY AND TYPE OF MITIGATION INSTRUMENTS

On the risk evaluation of an operation or of a group of operations, the mitigation elements of credit risk associated to those operations are considered in accordance with the rules and internal procedures that fulfil the requirements defined by the regulations in force, also reflecting the experience of the loans recovery areas and the Legal Department opinions with respect to the entailment of the various mitigation instruments.

The collaterals and the relevant guarantees can be aggregated in the following categories:

- Financial collaterals, real estate collaterals or other collaterals;
- Receivables;
- First demand guarantees, issued by banks or other entities with Risk Grade 7 or better on the Rating Master Scale;
- Personal guarantees, when the persons are classified with Risk Grade 7 or better;
- Credit derivatives.

The financial collaterals accepted are those that are traded in a recognised stock exchange, i.e., on an organized secondary market, liquid and transparent, with public bid-ask prices, located in countries of the European Union, United States, Japan, Canada, Hong Kong or Switzerland.

In this context, it is important to refer that the Bank's shares are not accepted as financial collaterals of new credit operations and are only accepted for the reinforcement of guarantees of existing credit operations, or in restructuring process associated to credit recoveries.

Regarding guarantees and credit derivatives, it can be applied the substitution principle by replacing the Risk Grade of the client by the Risk Grade of the guarantor, (if the Risk of Grade Degree of the guarantor is better than the client's), when the protection is formalized through:

- State, Financial Institutions or Mutual Guarantee Societies guarantees exist;
- personal guarantees (or, in the case of Leasing, there is a recovery agreement of the provider);
- Credit derivatives;
- Formalization of the clause of the contracting party in leasing contracts in which it is an entity that is in a relationship of dominion or group with the lessee.

6.2. PROTECTION LEVELS

An internal level of protection is attributed to all credit operations at the moment of the credit granting decision, considering the credit amount as well as the value and type of the collaterals involved. The protection level corresponds to the loss reduction in case of default that is linked to the various collateral types, considering their market value and the amount of the associated exposure.

In the case of financial collaterals, adjustments are made to the protection value by the use of a set of haircuts, in order to reflect the price volatility of the financial instruments.

6.3. COLLATERAL VALUATION

In the case of real estate mortgages, the initial appraisal of the real estate value is done during the credit analysis and and before decision process.

Either the initial evaluations or the subsequent reviews carried out are performed by external expert valuers and the ratification process is centralized in the Appraisals Unit, which is independent of the clients' areas.

In any case, they are the subject to a written report, in a standardized digital format, based on a group of predefined methods that are aligned with the sector practices – income, replacement cost and/or market comparative - mentioning the obtained value, for both the market value and for purposes of the mortgage guarantee, depending on the type of the real estate. The evaluations have a declaration/certification of an expert valuer since 2008, as requested by Regulation (EU) 575/2013 (CRR) and Law 153/2015 of 14 September and are ratified by the Appraisals Unit.

Regarding residential real estate, after the initial valuation and in accordance with Notice n. 5/2006 of Bank of Portugal and e CRR 575/2013, the Bank monitors the respective values through market indexes. If the index is lower than 0.9, the Bank revaluates choosing one of the following two methods:

i. Depreciation of the property by direct application of the index, if the amount owed does not exceed 300,000 euros;

ii. Review of the property value by external valuators, depending on the value of the credit operation, and in accordance with the established standards from ECB and Bank of Portugal.

For all non-residential real estate, the Bank also monitors its values through market indexes and to the regular valuation reviews with the minimum periodicities in accordance with the Regulation (EU) 575/2013, in the case of offices, commercial spaces, warehouses and industrial premises.

For all real estate (residential or non-residential) for which the monitoring result in significant devaluation of the real estate value (more than 10%), a valuation review is subsequently carried out by an expert valuer, preserving the referred i) above.

For the remaining real estate (land or country side buildings for example) there are no market indexes available for the monitoring of appraisal values, after the initial valuations. Therefore, for these cases and in accordance with the minimum periodicity established for the monitoring and reviewing of this type of real estate, valuation reviews are carried out by expert valuers.

The indexes currently used are supplied to the Bank by an external specialized entity that, for more than a decade, has been collecting and processing the data upon which the indexes are built.

In the case of financial collaterals, their market value is daily and automatically updated, through the IT connection between the collaterals management system and the relevant financial markets data.

The next tables (45 and 46) show figures concerning the use of credit risk mitigation techniques, as at 31/12/2018 e 30/06/2018.

TABLE 45 – TEMPLATE 18 / EU CR3 – CRM TECHNIQUES - OVERVIEW

31/12/2018 (Milhares de euros)

Exposures:	Unsecured	Secured	Secured by collateral	Secured by financial guarantees	Secured by credit derivatives
Total loans	11 388	35 404	31 285	4 119	
Total debt securities	17 738	991	697	294	
TOTAL EXPOSURES	29 127	36 395	31 982	4 413	
Of which: defaulted	391	2 309	2 085	224	

Note: Securities of the Trading Book are not included.

30/06/2018 (Milhares de euros)

Exposures:	Unsecured	Secured	Secured by collateral	Secured by financial guarantees	Secured by credit derivatives
Total loans	10 560	35 483	31 496	3 986	
Total debt securities	16 891	0		0	
TOTAL EXPOSURES	27 451	35 483	31 496	3 986	
Of which: defaulted	409	2 962	2 686	276	

Note: Securities of the Trading Book are not included.

TABLE 46 – TEMPLATE 19 / EU CR4 – STANDARDISED APPROACH – CREDIT RISK EXPOSURE AND CRM EFFECTS

31/12/2018 (Thousand euros)

	Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWA	RWA density
Central Governments or Central Banks	14 854 054	298 896	15 904 766	144 765	1 764 895	11,0%
Regional Governments or Local Authorities	768 219	38 651	554 504	9 223	112 808	20,0%
Public Setor Entities	97 214	47 440	90 433	9 379	137 067	137,3%
Multilateral Development Banks	19 139		19 139			
International Organisations						
Institutions	1 156 415	1 008 427	1 161 168	54 426	319 477	26,3%
Corporates	5 370 461	3 104 489	4 646 973	173 425	4 581 830	95,1%
Retail	2 852 686	319 298	2 775 098	3 616	1 977 644	71,2%
Secured by mortgages on immovable property	1 198 570	21 699	1 153 513	5 406	791 032	68,3%
Exposures in default	689 791	97 602	379 732	2 343	432 802	113,3%
Items associated with particularly high risk						
Covered bonds						
Claims on institutions and corporates with a short-term credit assessment						
Collective Investment Undertakings	157 476		157 476		109 579	69,6%
Equity exposures	29 457		29 457		71 919	244,2%
Other exposures						
TOTAL	27 193 483	4 936 502	26 872 259	402 583	10 299 053	37,8%

30/06/2018 (Thousand euros)

	Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWA	RWA density
Central Governments or Central Banks	13 386 068	188 023	14 010 800	80 561	1 731 502	12,3%
Regional Governments or Local Authorities	763 373	69 687	636 994	16 818	130 890	20,0%
Public Setor Entities	103 300	109 632	95 543	25 768	170 933	140,9%
Multilateral Development Banks	18 486		18 486			
International Organisations						
Institutions	1 168 047	949 812	1 355 331	54 995	559 912	39,7%
Corporates	5 008 117	2 893 439	4 379 236	158 547	4 482 672	98,8%
Retail	2 435 762	314 310	2 364 722	5 930	1 675 272	70,7%
Secured by mortgages on immovable property	941 711	24 330	894 867	6 678	535 749	59,4%
Exposures in default	690 377	116 690	383 721	3 035	438 293	113,3%
Items associated with particularly high risk						
Covered bonds						
Claims on institutions and corporates with a short-term credit assessment						
Collective Investment Undertakings	22 652		22 652		33 977	150,0%
Equity exposures	22 074		22 074		53 429	242,0%
Other exposures						
TOTAL	24 559 966	4 665 923	24 184 425	352 331	9 812 627	40,0%

6.4. WRONG WAY RISK

The Wrong Way risk corresponds to the risk of a given exposure being adversely correlated with the counterparty's credit risk. Within credit granting this risk stems from the correlation between the collateral value and the credit worthiness of the borrower, i.e., when the deterioration of the credit risk of the latter leads to a devaluation of the collateral.

Similarly, in the case of derivative and repo transactions, this translates to the risk associated with the fact that the exposure at risk is adversely impacted by the credit quality of the counterparty.

Overall, the Bank considers this risk as immaterial, taking into account the composition of financial collateral. In terms of credit granted, the borrower's own securities (shares or bonds) represents a very small percentage of the total amount of credit, corresponding mainly to structured finance, including Project Finance, where the usual pledge of shares from the companies or vehicles is part of a comprehensive guarantees' package. Indeed, almost all of the credits that have a securities' pledge have additional collateral to secure the exposure.

In the case of derivative and repo operations, in which the Bank mitigates counterparty credit risk through ISDA contracts with CSA, the coverage of market receivables is exclusively made through deposits at the Group itself; hence, wrong-way risk does not apply. In terms of credit default derivatives (CDS or TRS) or other guarantees provided by counterparties, the Bank is also not subject to material wrong-way risk, as the risk covered is not positively correlated with the protection provider.