04

Risk Management

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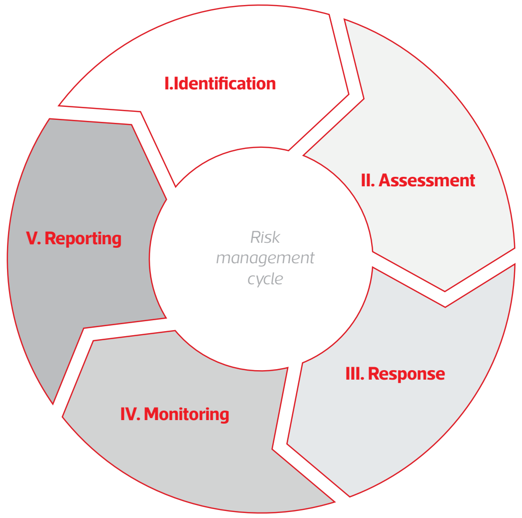
4.1 Risk Management

The risk management system is part of the Group's internal control system (SCI), creating an appropriate control environment in which the Group carries out its activities, within the limits of its Risk Appetite Statement (RAS).

The risk management system delineated by the Banco CTT Group is based on a number of concepts, principles and rules, and on an applicable organisational model adjusted to Group, respecting its regulatory framework. The risk management model covers five essential stages, namely: identification, assessment, response, monitoring and reporting of risks.



In carrying out its activity, the Group is exposed to various types of risk arising from both external and internal factors, mainly depending on the characteristics of the market in which it operates.

The risk strategy is reviewed annually and defines the qualitative principles, rules and the quantitative rules and limits for the management of the different risks arising from the Group's activity. These are formalised in its RAS, presenting the risk appetite framework for the business growth of the Banco CTT Group in the next 3 years of activity.

The Group's risk management and internal control policy aims to maintain an adequate relationship between its equity and the activity developed, as well as the corresponding risk profile assessment / return by line of business.

The risk management policy also seeks to support the decision-making process, thereby enhancing the Group's short and long-term capability to manage the risks to which it is exposed and enabling clear communication on how business risk should be managed, in order to create the basis for a solid operational environment.

In this context, it is important to monitor and control the main types of risks faced by the Group's activity.

The monitoring and management of risk in each area is based on the risk profile defined annually, in order to ensure that the pre-defined levels of risk appetite are complied with during the Group's activity.

In defining risk management processes, the Group adopts tools and methods that enable it to identify, assess, monitor and report risk both from an individual standpoint and in an integrated perspective. This ensures a comprehensive vision of the risks to which the Group is exposed, and an early understanding and appraisal of the potential impact these risks may have on the institution's solvency and liquidity.

Governance of Risk Management

The Board of Directors is responsible for defining and maintaining the risk policy, including the approval of its principles at the highest level, ensuring its compliance with the risk management model in force. The Board of Directors is also responsible for defining the Group's strategic orientation and the acceptable risk levels, ensuring that the business is conducted according to the instituted risk policy and that the material risks to which the Bank is exposed stay at the predefined level.

The Audit Committee of Banco CTT, as a supervisory body, is responsible for overseeing the efficacy of the risk management system, the internal control system and internal audit system by way of internal audit duties and the External Auditor. It also acts as the risk committee, under the terms of and for the purposes established in article 115-L of the RGICSF. The Audit Committee is responsible for assisting the Board of Directors in supervising the execution of the Bank's risk strategy by the Executive Committee. It also advises on risk appetite by presenting a corrective plan to the Board of Directors, whenever necessary, accessing information on the Bank's risk situation and, if necessary, accessing the risk management function and external expert advisers.

In order to make the control of the Board of Directors' strategic decisions more efficient, as well as the preparation of those decisions, specific committees have been created, with recurring meetings for risk management purposes which, in line with the Board of Directors' decisions, perform an important role in the management and control of financial and non-financial risks.

These committees are responsible for the definition and execution of the risk management criterial and instruments, capital allocation, liquidity management, management of non-financial risks, continuous monitoring and assessment of the efficacy of the internal control system, namely by monitoring the detected flaws and events, as well as by monitoring the risks, with a view to supporting the Board of Directors on the related issues.

Risk management duties are operationally centralised in the Risk Department and are independent from the business units, consistently incorporating the concepts of risk and capital in the Group's business strategy and decisions.

The Risk Department is responsible for implementing the risk policies set out by the Board of Directors and ensuring the integrated management of risks to which the Group is or may become exposed, ensuring these are managed appropriately by the Group's various Departments within the established limitations. In addition, the Risk Department identifies and assesses risks, develops methods and metrics for risk measurement and monitors and controls the evolution of risk, while defining effective and adequate controls for the mitigation of risk. It is also responsible for reporting the relevant risks, preparing periodic and timely reports that enable a reliable assessment of risk exposure and identifying the implemented control procedures to manage these risks, supporting the decision-making process in the risk management area of the Group.

The main responsibility of the Compliance Department is the management of compliance and reputational risk.

This department independently promotes and controls the adoption of the best banking practices by all the Group's bodies and employees. It also ensures they comply with the ethical principles and internal and external standards that govern the Bank's activity not only to avoid any monetary or reputational losses that may arise from a breach thereof, but also to contribute to customer satisfaction and the long-term sustainability of the business.

In addition, the Compliance Department prevents the Group's involvement in criminal money laundering and the financing of terrorism, by monitoring the customer acceptance policy and the transactions performed by the customers, always notifying the competent authorities whenever there is cause for suspicion.

Internal audit duties are carried out by the Internal Audit Department. This department is integral part of the process of monitoring the internal control system, carrying out autonomous supplementary assessments of the controls made and identifying possible shortcomings and recommendations. All of this is documented and reported to the management body, thereby protecting the institution's value, its reputation and solvency.

Credit Risk

Credit risk is related to the degree of uncertainty of attaining the expected returns as a result of the inability either of the borrower (and guarantors, if any) or of the issuer of a security or of the counterparty to an agreement to fulfils their obligations.

As the Group's main activity is commercial banking, with special emphasis on the retail segment, at this initial stage, the Bank offers simple credit products – mortgage loans and overdraft facilities associated to current bank accounts with salary/pension domiciliation, and via the acquisition of 321 Crédito, the offer of specialised credit at the point of sale.

Furthermore, the Group is also currently exposed to credit risk from other activities, namely its direct exposure to credit risk from investments and deposits in other credit institutions, eurozone public debt securities, debt instruments from other issuers (credit institutions and companies) and securities from credit securitisations of the Portuguese tariff deficit.

The control and mitigation of credit risk is carried out through the early detection of signs of portfolio deterioration, mainly through early warning systems and the pursuit of appropriate actions to prevent risk of default, the remedying of actual default and the creation of conditions that maximise recovery results.

The Group considers that there is a concentration of risk when various counterparts are located in a common geographic region, develop activities or have economic features that are similar which affect their capacity to comply with contractual obligations in the event of significant changes in macroeconomic conditions or other relevant changes for the activities carried out by the counterparts. Banco CTT has defined and implemented limits of concentration to mitigate this risk.

The analysis of risk concentration is essentially based on geographic concentration and concentration in the economic sector in which the counterparts operate.

The exposure subject to credit risk by country and risk class are detailed in this section, portraying the increased geographic diversification of the Group's investments.

The activities developed by the counterparts show some level of concentration in investment in public debt products, namely in eurozone countries. However, this concentration is in accordance with the Group's policy on risk appetite and is part of the liquidity risk management performed by the Group.

Credit risk is quantified/measured on a monthly basis by assessing the impairments required to cover customer credit, resulting from the application of the collective and individual impairment model.

The Capital and Risk Committee, Audit Committee and Board of Directors regularly monitor the Group's credit risk profile, in particular with respect to the evolution of credit exposures and monitoring losses. Compliance with approved credit requirements and limits are also subject to review on a regular basis.

The following table presents information on the Group's exposures to credit risk (net of impairment and including off-balance sheet exposures) as at 31 December 2019 and 31 December 2018:

(amounts in thousand euros)

	2019	2018
Central Authorities or Central Banks	471,295	424,294
Credit institutions	166,289	235,525
Companies	18,041	44,840
Retail customers	467,468	4,341
Loans secured by immovable assets	421,748	247,042
Non-performing loans	7,291	128
Other items	57,072	40,850
Risk Headings	**1,609,204**	**998,921**

Banco CTT has been diversifying its credit risk exposures geographically and, on the reporting date, had the following exposures by country:

(amounts in thousand euros)

	Central Authorities or Central Banks	Credit institutions	Companies	Retail customers	Loans secured by immovable assets	Non-performing loans	Other items	Total
2019								
Portugal	317,036	114,240	18,041	467,468	421,748	7,291	57,072	1,402,896
Spain	54,924	47,374	-	-	-	-	-	102,298
France	6,492	29	-	-	-	-	-	6,522
Italy	87,172	-	-	-	-	-	-	87,172
Ireland	5,671	-	-	-	-	-	-	5,671
United Kingdom	-	3,230	-	-	-	-	-	3,230
Germany	-	1,416	-	-	-	-	-	1,416
Total	**471,295**	**166,289**	**18,041**	**467,468**	**421,748**	**7,291**	**57,072**	**1,609,294**
2018								
Portugal	303,127	143,452	44,090	4,341	247,042	128	40,850	783,030
Spain	45,039	85,402	489	-	-	-	-	130,929
France	6,550	-	-	-	-	-	-	6,550
Italy	63,703	-	-	-	-	-	-	63,703
Austria	-	8,469	-	-	-	-	-	8,469
Luxembourg	-	-	261	-	-	-	-	261
Ireland	5,776	-	-	-	-	-	-	5,776
Netherlands	-	203	-	-	-	-	-	203
Total	**424,194**	**237,525**	**44,840**	**4,341**	**247,042**	**128**	**40,850**	**998,921**

The exposures by activity sector are as follows:

(amounts in thousand euros)

	Companies		SME		Individuals	
	Performing Loans	Non Performing Loans	Performing Loans	Non Performing Loans	Performing Loans	Non Performing Loans
Companies						
Construction	778	846	7,418	761	-	-
Wholesale/retail trade, rep. of autom., motoc., personal and domest. goods	251	2,523	5,384	318	-	-
Transport, storage and communications	251	914	1,333	12	-	-
Accommodation and catering (restaurants and similar)	199	67	1,785	46	-	-
Real estate activities	263	25	1,531	-	-	-
Textile industry	16	41	1,657	24	-	-
Agriculture, animal husbandry, hunting, forestry and fisheries	88	43	832	198	-	-
Health and social welfare	84	4	681	-	-	-
Education	53	4	605	-	-	-
Unspecified manufacturing industries	19	194	375	3	-	-
Heavy metalworking industries and metal products	23	132	372	-	-	-
Paper pulp, cardboard, publishing and printing industries	20	40	284	-	-	-
Food, beverage and tobacco industries	-	97	167	73	-	-
Electricity, water and gas production and distribution	-	103	194	-	-	-
Leather and leather product industry	4	40	162	58	-	-
Mining industries except for energy products	-	231	26	-	-	-
Financial intermediation auxiliary activities	29	12	144	-	-	-
Work, cork and derived work industries	29	22	96	-	-	-
Manufacture of other non-metallic mineral products	-	22	52	-	-	-
Manufacture of electrical and optical equipment	-	-	66	-	-	-
Manufacture of machinery and equipment	-	4	27	-	-	-
Manufacture of rubber articles and plastics	-	5	12	-	-	-
Manufacture of transport material	7	9	-	-	-	-
Financial intermediation excluding insurance and pension funds	144,803	-	2	-	-	-
Manufacture of chemical products and synthetic or artificial fibres	-	1	-	-	-	-
Manufacture of coke, petroleum and refined products and nuclear fuel	-	-	-	-	-	-
Insurance, pension funds and social welfare complementary activities	-	-	-	-	-	-
Public administration, defence and mandatory social security:	-	-	-	-	-	-
Other	1,660	1,094	16,010	122	-	-
Individuals						
Mortgage	-	-	-	-	405,168	-
Consumer	-	-	-	-	437,362	12,704
	148,577	**6,473**	**39,217**	**1,615**	**842,530**	**12,704**

The Bank's exposures have the following maturity profiles:

(amounts in thousand euros)

Residual Maturity	Central Authorities or Central Banks	Credit institutions	Companies	Retail customers	Loans secured by immovable assets	Securitisation	Non-performing loans	Other items	Total
2019									
Up to 1 year	29,505	134,013	3,427	461,839	-	-	-	-	628,784
1 to 5 years	204,688	18,716	14,614	-	-	-	-	-	238,018
More than 5 years	237,102	-	-	-	410,568	-	-	-	647,670
Undetermined *	-	13,560	-	5,629	11,180	-	7,291	57,072	94,732
Total	**471,295**	**166,289**	**18,041**	**467,468**	**421,748**	**-**	**7,291**	**57,072**	**1,609,204**
2018									
Up to 1 year	15,511	120,138	10,757	569	-	-	-	-	146,975
1 to 5 years	149,847	69,580	34,083	-	-	-	-	-	253,510
More than 5 years	258,837	40,682	-	-	237,058	-	-	-	536,577
Undetermined *	-	7,125	-	3,772	9,984	-	128	40,850	61,858
Total	**424,194**	**237,525**	**44,840**	**4,341**	**247,042**	**-**	**128**	**40,850**	**998,921**

* Off-balance sheet exposures were considered in the Undetermined maturity category.

Impairment Model

During 2019, the Group used an impairment model based on IFRS 9 and the respective benchmark criteria of Banco de Portugal defined in Circular Letter 62/2018. Moreover, the model also takes into account definitions and criteria that that have been published by the EBA.

The recognition of impairment should be based on historical information. However, due to the absence of a historical record for some segments, namely mortgage loans and overdrafts, the Group bases its calculations on benchmarks of the 'Probability of Default' (PD) and 'Loss Given Default' (LGD) parameters of other national banks or rating agencies.

The use of benchmarks has some pertinent implications:

- The data are obtained at the portfolio level, and in order to convert them into parameters by stage of impairment, Banco CTT assumes distributions considered to be its expected mature portfolio;
- Potential particularities of Banco CTT, negative or positive, are not captured by these benchmarks;
- As the available data up to date refer to 2019, at which time IFRS 9 was already in force, the Bank considers that they already include prospective information, namely on the expected macroeconomic context.
- Banco CTT transforms the annual PD and LGD into Lifetime Expected Losses using a survival rate method to calculate the PD of each period of the life of the instrument which is multiplied by the Loss Given Default (LGD), which in turn will depend on the expected exposure in each period and of the existing collateral in the operation. Finally, the Bank updates the expected value of all the periods considered.

For portfolios with a historical profile that enable the use of more sophisticated statistical models, in particular Auto Loans, the portfolio is segmented by financial product and by purpose, being subsequently subdivided into operations with (asset-backed) and without associated collateral. A new segmenting, based on the various criteria presented in CC/2018/00000062, enable a division by stage which, in turn, can be subdivided into intervals of days in arrears – risk classes – into intervals of 30 days, from 0 to 90 days in arrears.

The main inputs used for the measurement of expected credit losses on a collective basis, obtained through internal models, and other relevant historical data, taking into account existing models adapted to the requirements of IFRS 9, include the following variables:

- Probability of Default (PD):

  Probability of default represents the risk associated to the default of a particular operation throughout a particular time horizon. This parameter is used directly for the calculation of the expected credit loss (ECL) of operations in Stages 1 and 2, where, pursuant to IFRS 9, the period considered for calculation of the PD varies according to the Stage. Therefore, the period of 12 months should be considered for Stage 1 and the useful life of the operation for Stage 2. The dataset for calculation of PDs is composed of all the contracts of the risk class that, in the first observation of the selected interval, are in a regular situation. The calculation is made in terms of number of occurrences, per quarter, and by vintage in order to follow the macroeconomic indicators.

- Loss Given Default (LGD):

  Loss given default represents the estimated loss of a particular operation after entry into default. This parameter is used directly for calculation of the expected losses of operations in Stage 1,2 or 3. LGD can incorporate two components:

  • Collateral LGD, which estimates recoveries via foreclosure on collateral;
  • Cash LGD, which estimates recoveries via other means (e.g. payments made by the debtor).

- Exposure at Default (EAD):

  EAD represents the expected exposure in the event that the exposer and/or customer enters into default. The Company obtains the EAD values based on the current exposure of the counterpart, and includes the loans that have not yet fallen due, periodic calculation of interest, overdue interest not annulled and overdue loans.

The Bank considers the following main segments in the calculation of impairment:

Financial Assets	Retail Offer	Mortgage Loans	Consists of the Bank's mortgage lending offer which has residential real estate property as collateral, regardless of the degree of completion of its construction.
		Overdrafts	Includes the Bank's overdraft facilities and credit overrunning.
		Auto Loans	Includes the offer of used motor vehicle credit with reservation of ownership of 321 Crédito.
	Sovereign debt		Eurozone public debt securities and exposures obtained through the credit assignment contract.
	Corporate		Deposits and investments in other credit institutions, other financing granted to other credit institutions and corporate debt securities.
	Other		Various legacy portfolios of 321 Crédito in run-off phase.

For segments whose lack of historical records implied the use of benchmarks, the reference parameters considered for calculation of impairment at the various stages, on the reporting date, are:

Stage	Substage	Mortgage Loans		Overdrafts	
		PD	LGD	PD	LGD
1	Performing	0.5%	18%	1.1%	35%
2	With signs of impairment	4.0%	18%	5.0%	35%
	31-60 days	30.0%	18%	55.0%	35%
	61-90 days	65.0%	18%	75.0%	35%
Non-default average PD		1.1%		2.6%	
3	Default	100.0%	23%	100.0%	50%

Rating	Expected Loss	
	Corporate	Sovereign debt
AAA	0.019%	0.005%
AA+	0.025%	0.006%
AA	0.031%	0.008%
AA-	0.035%	0.009%
A+	0.039%	0.010%
A	0.043%	0.011%
A-	0.074%	0.019%
BBB+	0.105%	0.027%
BBB	0.136%	0.035%
BBB-	0.256%	0.118%
BB+	0.376%	0.202%
BB	0.496%	0.285%
BB-	0.986%	0.403%
B+	1.476%	0.522%
B	1.965%	0.640%
B-	7.778%	2.795%
CCC/C	13.590%	4.950%
No Rating	0.986%	0.403%

For segments that use benchmarks based on historical data, the average parameters considered for calculation of impairment at the various stages, on the reporting date, are:

	Auto Loans		Other	
	PD	LGD	PD	LGD
Stage 1	1.86%	35.42%	1.84%	35.42%
Stage 2	18.03%	35.42%	7.97%	35.42%
Stage 3	100.00%	49.76%	100.00%	98.58%

The Bank considers that the most sensitive parameters assumed are the benchmark PDs. In this context, the table below presents a sensitivity analysis on what would be impairment of the total portfolio is these parameters were 10% higher.

(amounts in thousand euros)

	Impairment					Impairment with shock					
	Stage 1	Stage 2	Stage 3		Total	Stage 1	Stage 2	Stage 3		Total	Impact
			Stage 3	POCI				Stage 3	POCI		
Sovereign debt	167	-	-	-	167	184	-	-	-	184	17
Financial institutions	216	-	-	-	216	238	-	-	-	238	22
Corporate	1	-	-	-	1	1	-	-	-	1	-
Retail	2,063	871	2,337	(1,293)	3,978	2,292	978	2,337	(1,293)	4,314	336
Mortgage Loans	51	44	-	-	95	56	47	-	-	103	8
Overdrafts	4	37	393	-	434	5	41	393	-	439	5
Auto Loans	1,950	788	1,932	(1,332)	3,338	2,167	888	1,932	(1,332)	3,655	317
Other	58	2	12	39	111	64	2	12	39	117	6
Total	**2,447**	**871**	**2,337**	**(1,293)**	**4,362**	**2,715**	**978**	**2,337**	**(1,293)**	**4,737**	**375**

Operational Risk

Operational risk arises from the probability of losses derived from the inadequacy or failure of internal procedures, systems, people or external events.

The operational risk management framework is a fundamental factor for risk management and control, with the continuous development of a strong risk culture and management being essential for its proper implementation.

Duly documented concepts, principles and practices have been endorsed for the management of this type of risk, which are reflected in control mechanisms subject to continuous improvement.

The goal of controlling and managing operational risk is geared towards detecting, assessing, reporting and monitoring this risk.

Governance of operational risk management

The operational risk management framework is based on a model of 3 lines of defence where the first line of defence, composed of all the Bank's employees and Process Owners, is primarily responsible for daily risk management, in conformity with the policies, procedures and controls that are defined.

The second line of defence ensures the monitoring of operational risk, advises and supports the first line of defence in identifying risks and controls associated to the various existing processes. The Control Functions (Risk and Compliance Departments) play a preponderant role in the second line of defence.

The third line of defence is ensured by Internal Audit, which is responsible for independently examining and assessing the adequacy and effectiveness of policies, processes and procedures that support the internal governance and risk management system by carrying out effectiveness tests on the implemented controls.

The approach to operational risk management is supported by the structure of end-to-end processes. A vision that cuts across all operational areas within the organisation's structure is deemed the most appropriate approach to perceiving risks and estimating the impact of corrective mitigation measures. The framework has a structure of processes that is adjusted in terms of the business' evolution.

Process Owners are responsible for defining the processes from an end-to-end perspective, ensuring the effective adequacy of controls, reporting the operational risk events detected by its database processes, identifying and assessing the risks and controls of processes through active participation in RSA (Risk Self-Assessment) exercises, detecting and implementing appropriate measures to mitigate risk exposure and monitor key risk indicators (KRIs) and performance indicators (KPIs) of processes.

In the operational risk management framework, the main operational risk management instruments involve the identification and recording of operational risk events, the process of self-assessment of risks and controls (RSA) processes and the identification and quantification of Key Risk Indicators (KRIs). These procedures enable the detection, assessment, monitoring and mitigation of operational risk, thereby ensuring minimum losses associated to this risk and promoting the effective management of operational risk.

Collection of operational risk management events

The recording of operational risk events is the instrument used to quantitatively measure the historical exposure to operational risk events, and to underpin subsequent analysis to the real efficacy of the existing controls.

This activity essentially consists of the use of a dynamic repository of all the risk events that may have occurred, supported by procedures that ensure the effective analysis of the most relevant events, whether due to their financial impact, their recurrence or other pertinent feature.

Therefore, the analysis of loss and near-miss events provides indications on the main risks and enables determining whether any failures are isolated events or systemic. On the other hand, this practice accelerates the identification of emerging events, enabling rapid response.

The detection and reporting of operational losses is the responsibility of all the employees, while Process Owners have a decisive role in recording and describing operational risk events, which includes detailing the respective cause and effect, quantifying the loss and describing the risk mitigation action plans.

The Risk Department is responsible for the recording and description of operational risk events in the database, and validating and monitoring them. Furthermore, the department monitors and identifies shortcomings in the processes and respective mitigation actions.

Fraud Risk

Operational risk includes events or risks related to fraud, for which a fraud risk management policy has also been approved. This policy formalizes the way in which fraud is addressed concerning its prevention, detection and investigation. Fraud can materialise through different channels, both via products and services and through the different entities with which the Group interacts. In this regard, the main types of fraud are considered to be fraud in the contracting of credit products, accounting fraud, online fraud, card fraud, fraud related to operations, fraud on the part of suppliers or service providers, and fraud of partners.

The defined fraud management model covers various stages, namely prevention, detection, investigation and monitoring. This approach to fraud management, at an initial stage primarily focuses on prevention and detection, in terms of definition of processes, procedures and controls, as well as the implementation of tools. These phases contribute to the effectiveness of the fraud management process, namely in the prevention stage, thereby minimising the impact of any losses associated with fraud risk events.

Compliance Risk

As defined by the Basel Committee on Banking Supervision, compliance risk is the risk the Bank incurs legal and/or regulatory penalties and financial or reputational damages due to failing to comply with laws, regulations, codes of conduct and best practices.

The Bank's Compliance Policy views compliance with the ethical and deontological principles, laws and regulations that govern its activity (including its own internal rules) as inseparable from its business activities and an integral part of the company's culture. In this regard, it gives equal importance to mandatory rules and to guidelines and recommendations from supervisory authorities, while also taking into consideration the customer's best interests.

In view of the compliance risk management cycle defined in the Compliance Policy, a manual of specific procedures was approved in 2019 for the identification, mitigation and management of potential or existing compliance risks, which complemented the existing procedural manual for the management of the risk of financial crime. The compliance risk management process enables the Bank to understand its exposure to risk, including the probability of occurrence of a risk event and the severity of its impact.

As the Bank operates in a highly regulated sector, it is crucial that it have an efficient and comprehensive compliance risk management cycle that reduces any possible penalties arising from breaches of legal and regulatory requirements. In this way, and in line with its General Risk Management and Internal Control Policy, the Bank stipulated the following stages in its cycle:

- **Identification**: the identification of compliance risks implies the identification of all the compliance requirements that the Bank should fulfil, whether derived from applicable legal and regulatory provisions or from rules contained in codes of conduct, policies or procedures defined internally. The Compliance Department is responsible for the systematisation of "compliance requirements" and their associated risks.

- **Assessment**: the potential risks associated to the identified "compliance requirements" should be assessed in order to know their inherent and residual risk.

- **Response**: Once the residual risk has been assessed, action priorities should be defined, together with the areas, in order to mitigate the risks that are above the defined risk appetite.

- **Monitoring**: compliance with requirements is monitored on an on-going basis by the Compliance Department, ensuring that any detected breaches are identified and acted upon in a timely fashion.

- **Reporting**: the overall state of the Bank's compliance with the legal and regulatory requirements is periodically reported to the supervisory and management bodies.

Compliance risks are classified by the Bank into the four categories defined in the General Policy on Risk Management and Internal Control:

- **Regulatory Risk:** derived from non-compliance with the legal and regulatory rules that discipline the pursuit of activity or provision of financial services or insurance, including those related to rules on competition, advertising or data protection, including breach of specific determinations of the respective Supervision Authorities, as well as failure to obtain or maintain the required authorisations, permits or records for the pursuit or provision of these services.

- **Risk of Financial Crime**: associated to non-compliance with the legal and regulatory rules on anti-money laundering and terrorist financing, as well as the restrictive measures endorsed by International Organisations. This also includes risk associated to abusive market practice (market manipulation and abuse of privileged information), and the risk of the Group's involvement in bribery and corruption activities.

- **Governance Risk**: associated to non-compliance with the rules on good corporate governance, namely with respect to the rules on the suitability, professional qualification, independence and availability of its governing bodies, and adequacy and suitability of the management and other employees. This also includes the risk of inappropriate internal governance practice, in particular situations of non-compliance with the delegation of duties and powers, insufficient separation of duties, unsuitability of the design of the organisational structure and of the reporting and defence lines, inadequate attribution of duties and responsibilities or the lack of means, autonomy and independence of the control functions or failures in the internal whistleblowing mechanisms. Likewise, this also includes the insufficiency of internal policies or disrespect for the existing internal policies, as well as the inadequate management of relations with the Supervision Authorities.

- **Conduct Risk**: associated to non-compliance with codes of conduct, internal policies, procedures and regulations, instituted practices or ethical principles, including. Namely, unauthorised trading practices (aggressive sales), manipulation of the accounts to create fictitious operations, manipulation of documents, lack of transparency concerning customers, other employees or management bodies, misselling practices or situations of conflict of interests.

Regarding, in particular, the risk of financial crime, in 2019 the Compliance Department made an assessment of the risk of money laundering and terrorist financing, and non-compliance with sanctions. In 2019 the Compliance Department also carried out an exercise of assessment of its policies aimed at the prevention, management and control of compliance and reputational risks, as a consequence having reviewed the Whistleblowing Policy, the Policy on Conflicts of Interest and Transactions with Related Parties, and promoted the preparation and approval of a Policy on Outsourcing aligned with the recent Guidelines of the European Banking Authority on this topic.

Compliance risk management also involves the ongoing follow-up of the regulatory initiatives with greatest impact on the Bank, where special reference is made, concerning 2019, to the projects of regulatory nature associated to the implementation of the new regulatory legislation of Banco de Portugal on anti-money laundering issues, as well as the new regulatory framework of payment services derived from the transposition into the national legal system, through Decree-Law 91/2018, of 12 November, of Directive (EU) 2015/2366 of the European Parliament and of the Council, of 25 November (revised Payment Services Directive, or PSD 2).

Compliance risk management also involves the preventive action of the Compliance Department in processes considered critical for the purpose, where reference is made to the sign-off of new policies and procedures, relevant communications made with customers, pre-contractual or contractual documentation, and materials of advertising nature. Likewise, the launch of new products/services or the significant change of existing products/services implies the conduct of risk assessments in which potential compliance or reputational risks are identified, for which actions or controls shall have to be implemented to enable their mitigation whether at a stage before the launch of the product or after the beginning of its marketing. The follow-up of the handling of customer complaints also merits special attention, not only with a view to the identification of compliance risks, but also to ensure that customer complaints have the correct outcome.

The management of compliance monitoring actions and testing of first line controls completes the compliance risk management cycle. In this regard, particular note should be made of the monitoring, in 2019, of the process of approval of new products and services, of the granting of loans to members of the corporate bodies, to the procedures of control of transactions with related parties, of the first line controls for account opening and of the remuneration policies.

Market Risks

Market Risk broadly means any loss arising from an adverse change in the value of a financial instrument as a result of a variation in interest rates, exchange rates, share prices, prices of goods or real estate, volatility and credit spreads.

The Group does not have a trading portfolio, with the exception of a derivative with a residual valuation that was acquired by one of the securitisations included in the consolidation perimeter, and almost all of its investment portfolio is recorded as other financial assets at amortised cost and residually as other financial assets through other comprehensive income. Credit risk, and not market risk, is the main risk arising from the Group's investments.

To limit any negative impacts from turmoil in the market, sector or issuer, the Group defined a number of limitations to manage its own portfolio in order to ensure that the risk levels incurred in the Group's portfolio comply with the predefined levels of risk tolerance. These limits are stipulated at least annually and are regularly monitored by the Capital and Risk Committee, Audit Committee and Board of Directors.

Interest Rate Risk

Interest rate risk is the risk of any loss of an economic value on balance sheet items that are interest rate-sensitive due to changing interest rates.

One of the main instruments used to monitor interest rate risk on the balance sheet is the repricing gap on assets and liabilities susceptible to changes in interest rates. This model groups variation-sensitive assets and liabilities into fixed timeframes (maturity dates or date of first review of interest rates, when floating), from which the potential impact on the Group's net interest income and economic value are calculated, due to changes in interest rate and for which the Group has stipulated specific tolerance limits.

The repricing gap reports are prepared monthly and are an essential tool in defining the investment strategy for each cycle in order for the Group to ensure that time mismatches between assets and liabilities are aligned at all times with the appetite stipulated in the risk strategy.

Up to date, the Group has been managing interest rate risk in its balance sheet structurally by using natural hedges in the composition of the investment portfolio, without resorting to derivative instruments.

Liquidity Risk

Liquidity risk is the risk of the Group's potential inability to meet its funding repayment obligations without incurring in significant losses, due to more onerous financing conditions or the sale of assets under market values.

The Group is exposed to the liquidity risk inherent to its business of transforming maturities, lending in the longer-term (essentially in Mortgage Lending) and borrowing liquidity, primarily in the form of deposits, where prudent management of liquidity risk is thus crucial.

Management Practices

The Banco CTT Group has established a liquidity risk management structure with clearly identified responsibilities and processes in order to ensure that all participants in liquidity risk management are perfectly coordinated and that the management controls are effective. Overall, the liquidity risk management strategy is entrusted to the Board of Directors, which delegates it to the Executive Committee, and is carried out by the Treasury Department, based on constant vigilance of exposure indicators, being closely monitored by the Capital and Risk Committee.

The Capital and Risk Committee is responsible for controlling liquidity risk exposure, by analysing liquidity positions and assessing their conformity with the applicable regulatory rules and limitations, as well as with the goals and guidelines defined by the Group.

The Treasury Department of Banco CTT is responsible for ensuring the cash flow management and necessary short-term liquidity levels. In particular, it is responsible for holding High Quality Liquid Assets (HQLA), and implementing the medium and long-term funding plans through cash management and interbank relationships, ensuring compliance with the established liquidity risk limits, minimum cash reserves, position limits and other regulatory ratios or those defined by the Executive Committee or Board of Directors.

The Risk Department is responsible for identifying, assessing, controlling and monitoring the Group's liquidity risk, ensuring its management within the risk appetite defined by the Board of Directors, supporting the definition of liquidity limits, ensuring the ongoing monitoring of its compliance, supporting the Capital and Risk Committee in the definition of key risk indicators (KRIs), and monitoring their evolution.

The different assets are constantly monitored as regards their eligibility to be involved in transactions, duly limited by what can be undertaken in each market.

As regards structural liquidity, the Group draws up a monthly liquidity report that takes into account not only the effective maturity date of the different products, but also their behavioural maturity, through which structural mismatches are determined for each time bucket.

In this context, in addition to the internal analyses for monitoring this risk (e.g. ongoing assessment of liquidity gaps and/or duration, analysis of the composition and availability of assets, etc.), the Group also adopts the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) quantifications, regularly monitoring their evolution and anticipating potential impacts. The Group also monitors additional liquidity monitoring metrics (ALMM) which enable checking for liquidity mismatches and the Group's capacity to offset negative mismatches (outflows greater than inflows).

The LCR seeks to encourage bank resilience to short-term liquidity risk, ensuring it has sufficient high quality net assets to survive a severe stress test for 30-day period.

The implementation of NSFR seeks to ensure banks maintain stable financing for their off-balance sheet assets and operations for a 1-year period.

Due to having higher granularity than the LCR (30 days), the ALMM enable greater control over the liquidity mismatch, taking into account the contracted outflow and inflows, and also enable knowing the concentration of counterbalancing capacity.

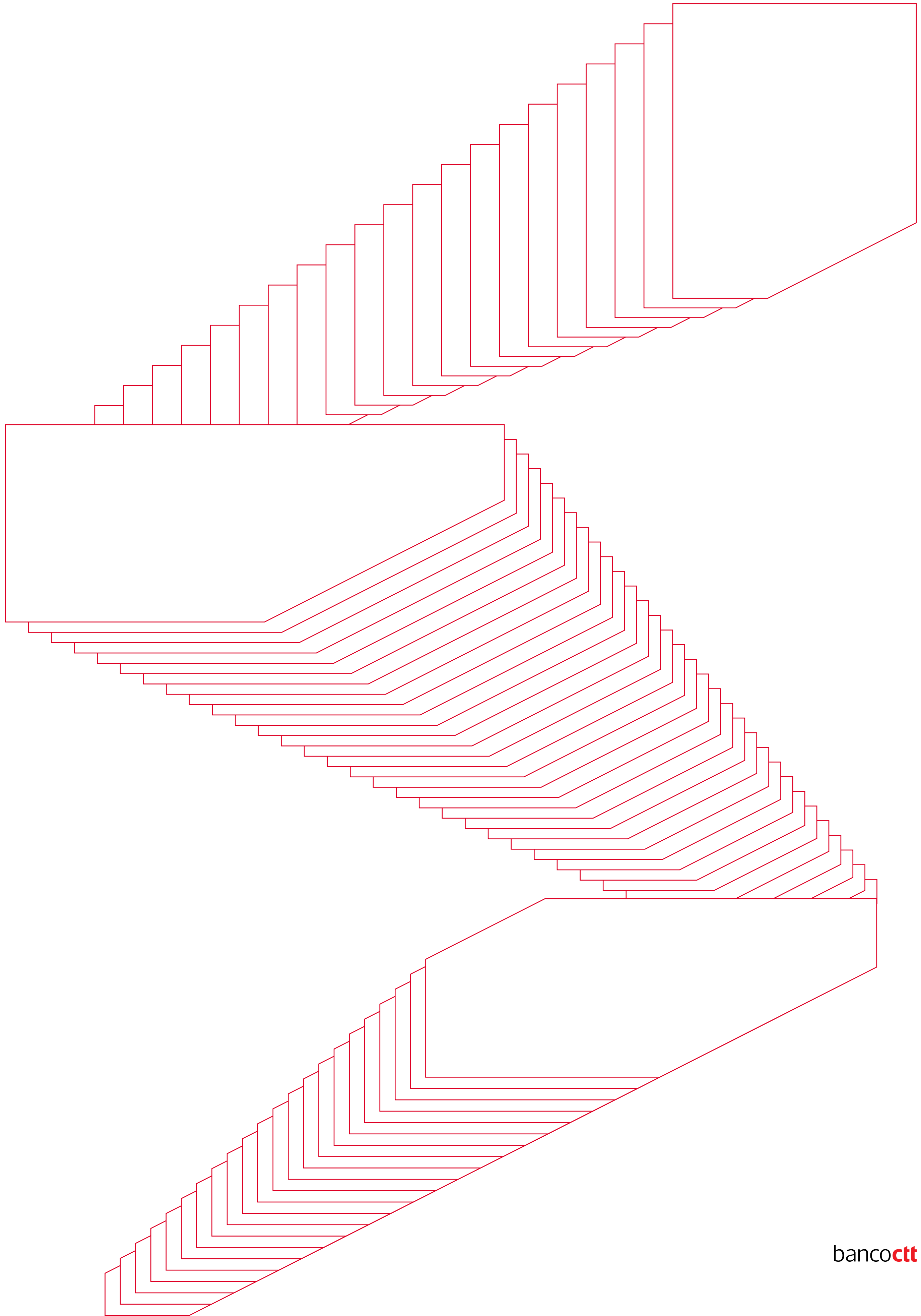
Analysis of Liquidity Risk

The Liquidity Coverage Ratio (LCR) reached a comfortable figure of 1.896% (3.102% at the end of 2018), significantly higher than the minimum requirements and in line with the Group's investment policy during 2019.

Banco CTT continues to follow all the legislative changes in order to comply with the regulatory obligations, namely in relation to the Capital Requirements Regulation (CRR) – Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR).

As at 31 December 2019, the ALMM shows a negative liquidity mismatch (difference between contracted outflows and inflows) of 609,479 thousand euros, to which customer deposits greatly contribute.

However, this negative liquidity mismatch is offset by the financial assets and reserves at the Central Bank of close to 781,858 thousand euros.



4.2 Board of Directors' Statement – Article 435, number 1, e) of the CRR

It is hereby stated that the institution's risk management measures and the implemented risk management systems are appropriate to the Bank's risk profile and strategy.

Lisbon, 13 March 2020

The Board of Directors

João de Almada Moreira Rato	António Pedro Ferreira Vaz da Silva
Luís Maria França de Castro Pereira Coutinho	António Emídio Pessoa Corrêa d'Oliveira
João Maria de Magalhães Barros de Mello Franco	Guy Patrick Guimarães de Goyri Pacheco
Pedro Rui Fontela Coimbra	João Manuel de Matos Loureiro
Nuno Carlos Dias dos Santos Fórneas	Susana Maria Morgado Gomez Smith
Clementina Maria Dâmaso de Jesus Silva Barroso	

4.3 Board of Directors' Statement – Article 435, number 1, f) of the CRR

Concise risk appetite statement:

The Banco CTT Group carries out its activity in a prudent and sustainable manner. The established goals for the business are, at any given time, limited by the risk tolerance levels defined according to the Group's long-term sustainability and profitability.

The risk tolerance levels are reflected in the Risk Appetite Statement (RAS) of the Group, with this instrument being used in the Bank's management and decision-making process in its consolidated activity. The first and foremost objective of the RAS is to lead the Group, in general, and its governing bodies, in particular, to reflect on the Bank's risk positioning. Accordingly, the RAS is reflected in a continuous and ever present concern in the different strategic planning and business cycles, being one of the core components for the definition of the Group's growth and profitability goals, and defines the main qualitative principles and quantitative limits for the management of the different risks arising from the activity, thus conditioning the criteria on decision-making and management operatives of the different risks.

The RAS is divided into two main components: a) Governance Model that, based on the General Policy on Internal Control and Risk Management, assigns responsibilities to the different corporate bodies and structural units; and b) Risk Assessment and Indicators that include an assessment of the different risks, identification of the material risks and definition of their limits.

The RAS is reviewed at least on an annual basis, both in terms of risk assessment and identification of the materials, and in terms of choice of relevant indicators and the established limits.

In its 2020-22 version, approved by the Board of Directors in December 2019, the RAS includes 17 indicators as limits that the Group considers essential for its sustainability in various aspects of its business: capital, liquidity risks, operational, credit, interest rate, reputational, compliance and information systems management.

In the last 2 years, Banco CTT presented the following risk and liquidity indicators:

	2019	2018
Common equity tier 1 ratio [CRR]	19.1%	23.5%
Total own funds ratio [CRR]	19.1%	23.5%
Leverage ratio [CRR]	7.7%	6.5%
Liquidity coverage ratio [CRR]	1,896%	3,102%
Net stable funding ratio [CRR]	162%	331%

Lisbon, 13 March 2020

The Board of Directors

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