Covered Bonds follow-up Rating

Banco Santander Totta S.A.

Mortgage Covered Bond (Soft Bullet) Program

Creditreform Rating

Rating Object	Rating Information
Banco Santander Totta, Mortgage Covered Bond Program	Rating / Outlook : **AA+ / Positive** — Type: Rating Update (unsolicited)
Type of Issuance : Mortgage Covered Bond under Portuguese law Issuer : Banco Santander Totta S.A. LT Issuer Rating : A- (Banco Santander Totta) ST Issuer Rating : L2 Outlook Issuer : Positive	Rating Date : 10.01.2024 Rating Renewal until : Withdrawal of the rating Maximum validity: 01.01.2050 Rating Methodology : CRA „Covered Bond Ratings"

Program Overview

Nominal value	EUR 9,700 m.	WAL maturity covered bonds	5.19 Years
Cover pool value	EUR 11,313 m.	WAL maturity cover pool	27.22 Years
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	16.63%/ 15.00%
Repayment method	Soft Bullet	Min. overcollateralization	5.00%
Legal framework	Covered Bond Law	Covered bonds coupon type	Fix (100.00%), Floating (0.00%)

Cut-off date Cover Pool information: 30.09.2023.

Content

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Rating Action

This follow-up report covers our analysis of the mortgages covered bond program issued under Portuguese law by Banco Santander Totta S.A. („Banco Santander Totta"). The total covered bond issuance at the cut-off date (30.09.2023) had a nominal value of EUR 9,700.00 m, backed by a cover pool with a current value of EUR 11,313.15 m. This corresponds to a nominal over-collateralization of 16.63%. The cover assets include Portuguese mortgages obligations in Portugal.

Taking into consideration the issuer rating, our analysis of the regulatory framework, liquidity- and refinancing risks, as well as our cover pool assessment and results of the cash flow analysis, Creditreform Rating AG ("Creditreform Rating" or "CRA") affirms the covered bond program with a AA+ rating with a positive outlook. The positive outlook is due to the issuer's positive rating outlook. The AA+ rating represents a very high level of credit quality and very low investment risk.

Key Rating Findings

+ Covered Bonds are subject to strict Portuguese legal framework for covered bonds
+ Covered Bondholders have full recourse to the issuer
+ Covered Bond are backed by the appropriate cover asset class
+ Earnings of the issuer benefits from high net financial margins and best-in-class cost efficiency metrics

- Significant maturity mismatches between covered bonds and cover assets

Table1: Overview results

Risk Factor	Result
Issuer rating	A- (rating as of 19.06.2023)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1st uplift	AA+
Cover pool & cash flow analysis	BBB-
+ 2nd rating uplift	+/-0 Notch
= Rating covered bond program	**AA+**

Issuer Risk

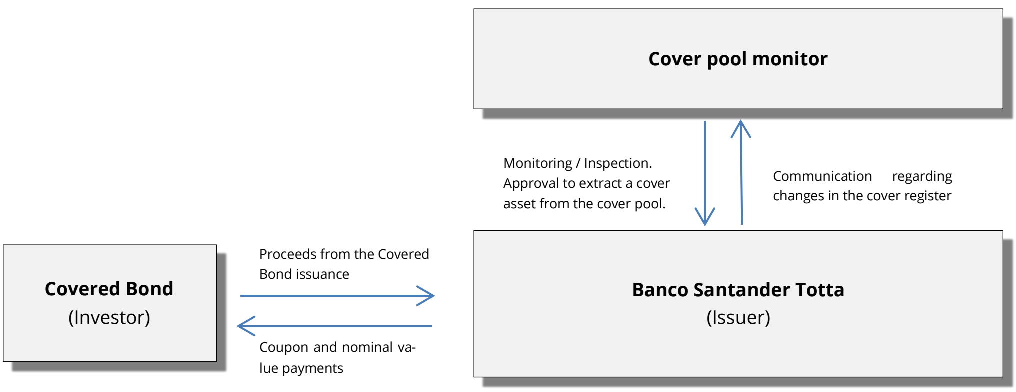
Issuer

Our rating of Banco Santander Totta covered bond program is reflected by our issuer rating opinion of Banco Santander S.A. (Group) due to its group structure. CRA has affirmed the Long-term rating of Banco Santander at A- in a Rating Update dated 19.06.2023. At the same time, CRA assigned a positive outlook to the rating. Banco Santander has a high systematic relevance in the global banking sector. The rating is based on, among other factors, Banco Santander's net results and its profitability ratios – which have slightly improved – mainly driven by growing net interest income that translated into a net income growth of 11.5% in 2022. Additionally, CRA expects the higher rate environment to provide an earnings tailwind also in 2023 and beyond. Overall, the bank's earnings profile – that benefits from very high net financial margins and best-in-class cost efficiency metrics – remains a key rating strength. For a more detailed overview of the issuer rating, please refer to the issuer rating report published on the webpage of Creditreform rating AG.

Structural Risk

Transaction structure

Figure1: Overview of Covered Bond emission | Source: CRA



Legal and Regulatory Framework

In Portugal, the covered bond legislation has recently been amended to be in line with the EU Covered Bond Directive. The EU Directive, which has been transposed into Portuguese law via the Decree-Law 31/2022 of 6 May 2022 approving the new Legal Regime of Covered Bonds (the "*Regime Jurídico de Obrigações Cobertas*" or "RJOC") was published in the Portuguese Official Gazette. Without prejudice to certain transitional provisions, this new regulation entered into force on 1 July 2022. The RJOC has been supplemented by the secondary legislation– Notices and Regulatory Instruments (Avisos e Instruções) of the Central Bank of Portugal. In particular it deals with aspects such as the segregation of the cover pool from the issuer's insolvency estate in case of issuer default, the adherence to asset and liability matching, or mortgage valuation techniques.

Under RJOC, the covered bonds are now designated as "obrigações cobertas". The law contains transitory provisions under which the former Portuguese covered bond legislation will continue to apply to mortgages and public sector covered bonds issued until 8 July 2022, previously designated as "*obrigações hipotecárias*" ("OH") and "*obrigações sobre o sector público*" ("OSP"), respectively, until their respective maturities. Regardless, they may be designated as "*obrigações cobertas*" if their respective programs are adjusted and approved in accordance with the new law. Issuers may also choose to continue both their existing OH and OSP programs under the old legislation and launch a new program under the new law.

A comprehensive overview of the old legislation with previous amendments can be found in our initial and follow-up rating reports of Banco Santander Totta Mortgage Covered Bonds. The following major provisions describe the current status of the Portuguese covered bond legislation.

Under RJOC, only universal credit institutions in Portugal can issue Portuguese covered bonds. The Bank of Portugal and the Portuguese Securities Commission (CMVM) are in charge of the banking and capital markets supervision. Besides the establishment of the necessary provisions for Credit Institutions, the Bank of Portugal is responsible for the regulatory monitoring of covered bond programs and their issuers off-site and on-site. In case of any issuer's non-compliance, the Bank of Portugal can decree a penalty or even restrict the issuer from issuing covered bonds in the future.

Bankruptcy Remoteness and Asset Segregation

The RJOC ensures the identification and segregation of the cover assets, i.e. the cover assets assigned to the issues of covered bonds are directly owned and kept by the issuer in segregated accounts and established as a separate legal estate. The issuing institutions must record all assets and derivative contracts which are part of the cover pool, into the cover register in order to identify them as separate legal estate, and to split them off from the issuer's remaining assets in case of issuer default.

Covered bond holders enjoy of a preferential status i.e. they have priority over any other creditors' receivables regarding their principal and interest claims. In the case that cover assets are insufficient to repay covered bond holders, they allowed to file a claim against the general insolvency estate of the issuer and can make use of the dual recourse, while they rank *pari passu* to other unsecured creditors. In addition, in the case of an issuer default, no automatic acceleration of the covered bond will take place. Covered bonds will continue to exist and they will be reimbursed at the time of their original contractual maturity.

Cover Pool Monitor

The issuers must appoint an independent auditor - "the cover pool monitor", who acts on behalf of the covered bond holders' interests. He or she has to supervise the accuracy of the transactions and of the soundness of the cover assets, and to examine whether the legal and regulatory requirements are maintained (e.g. minimum mandatory overcollateralization requirements, exposure to market risk and liquidity risk, etc.). However, the law also allows for an "internal cover pool monitor" under certain conditions who is independent from the credit decision process of the bank or has direct access to the management body in its supervisory function.

The issuer has to ascertain that all requirements are achieved and has to report it to the Central Bank on a regular basis. Regarding investor information, it is obligatory to quarterly disclose information that is sufficiently detailed to allow investors to assess the profile and risk of covered bond programs and carry out due diligence. Furthermore, the issuer has to publish the nominal value of the issued covered bonds, the amount and structure of cover assets, the various coverage ratios, the ratio with respect to the liquidity buffer, the retention period of covered bonds and the cover pools, the amount of non-performing cover assets and derivative counterparties, etc. In practice, Portuguese covered bond issuers disclose investor reports on their website quarterly, while they also have elaborated the Harmonized Transparency Template.

Special Administrator

In the event of an issuer default, the CMVM shall appoint a special cover pool administrator to (i) independently manage the cover pool, including if necessary, transferring the cover pool, together with related covered bond payment obligations, to another covered bond issuer, and (ii) ensure payments of any amounts due to the covered bondholders. The special cover pool administrator shall provide for the liquidation of the cover pool for the benefit of the holders of covered bonds and counterparties to derivative contracts ranking *pari passu* among themselves.

Eligibility Criteria

Eligible cover assets are mainly first rank mortgage loans. Second rank mortgage loans can be also incorporated provided that the first rank mortgage loan of the same property was included beforehand in the cover pool. Eligible cover assets backed for the "Obrigação Coberta Europeia (Premium)" ("OCE Premium") covered bonds are, in particular, exposures to public sector entities and authorities; loans secured by residential or commercial mortgages with a maximum LTV of 80% and 60% (or 70% in certain circumstances), respectively; or loans secured by maritime liens on ships, subject to a maximum LTV of 60%.

The geographical scope of eligible mortgage loans and public assets is limited to the EU countries, while assets from the US, Canada and Japan are not permitted.

The legal framework stipulates that cover pools have to be segregated into mortgage and public sector cover pools, i.e. mixed pools are not allowed. However, there are no regulatory limits that restrict the mixture and composition of residential and commercial mortgages in one cover pool, although their relative ratio within the cover pool should not vary significantly over time. Substitution assets can be included which are non-primary eligible EEA assets, deposits with Bank of Portugal, bank deposits, or other low-risk highly liquid assets.

Summary Structural Risk

In general, Covered Bonds Law provides clear rules on public supervision, insolvency and segregation of cover assets, the priority of creditors' claims in the event of insolvency, the relevant eligibility criteria for cover pool assets, and the rules for its fiduciary management, which provide adequate structural support for the covered bond programs in Portugal.

We considered the structural framework in Portugal under the legal framework as positive. Due to those reasons we have set a rating uplift of four (+4) notches.

Liquidity- and Refinancing Risk

Minimum Overcollateralization

According to the Law, the total nominal amount of all cover assets shall equal or exceed the total nominal amount of outstanding covered bonds ("nominal principle"). Moreover, the total nominal value of the outstanding mortgage covered bonds must not exceed 95% of the total value of cover pool assets. This yields a mandatory overcollateralization of 5%, for as long as any such covered bonds are outstanding. In case the commercial LTV is over 70%, then the program must keep the over collateralization above 10%.

Short-term Liquidity Coverage

The "natural matching" is the main tool used to mitigate liquidity risk. Besides that, the issuer has to guarantee a liquidity buffer composed of liquid assets to pay any coupon and redemption obligations (interest and principal coverage) on the covered bonds for the next 180 days. Considering soft-bullet or covered bonds with extendable maturity, the calculation of the maximum cumulative net liquidity outflow of the program takes into account the final (extended) maturity date for the capital outflow, as specified in the applicable contractual terms and conditions.

Stress Tests and Matching

There is no regulatory obligation that requires issuers to perform specific stress tests. Derivatives contracts (such as currency swaps, interest rate swaps and total return swaps) can be an added in the cover pool exclusively for the risk hedging purposes if the contracts meet certain conditions.

Asset-Liability Mismatch

Asset-liability mismatches ("ALM") arise with different maturities of cover assets and covered bonds. Depending on the issuer and currency of issuance, natural matching - i.e. the congruence of present values – forms the essential approach to reduce ALM risk. In addition, the statutory liquidity coverage requirement for 180 days is a safeguard mechanism to ensure the servicing of pending principal and interest payments.

Under the covered bond law, in order to mitigate liquidity risks, banks may issue covered bonds with an extendable maturities upon, either the withdrawal of the issuer's banking license, or a foreseeable or actual failure to pay amounts due at the scheduled maturity that cannot be remedied within 10 business days, which must be communicated to the CMVM. However, the bank issuing covered bonds with extended maturities must provide various information on maturity extension and shall ensure that the maturity date of the covered bond can be determined at all times. A maturity extension shall also not affect the dual recourse and bankruptcy remoteness principles.

The present covered bond program issues covered bonds with soft bullet maturity, i.e. a 12 months extension period will grant additional time to pay back principal and interest payments of covered bonds. This feature of the covered bond program has been considered quantitatively in our analysis.

Refinancing costs

CRA's analysis assumes that refinancing gaps due to ALM will be closed by a sale of assets from the cover pool. In doing so, we take into account related costs in the form of a discount to the nominal value. The quantification of this discount takes place following an analysis of relevant market data and enters into the cash flow analysis.

Summary Liquidity- and Refinancing Risks

In summary, the Portuguese covered bonds legislation and the stipulated risk management processes for liquidity risks constitute a comparatively strict framework by which they can be effectively reduced. Refinancing risks, however, cannot be structurally reduced under the hard bullet repayment structure, which can only be cushioned by sufficiently high overcollateralization or short-term cash availability or other liquid funds to bridge the asset-liability mismatches in the portfolio.

Nevertheless, we assess the overall legal provisions on liquidity management for covered bonds programs under the Cover Bond Law in Portugal and set a rating uplift of one (+1) notch.

ESG Criteria

CRA generally takes ESG-relevant factors (environmental, social and governance) into account when assessing Covered Bond ratings. Overall, ESG factors have a significant impact on the current rating of this Covered Bond program. CRA identifies governance factors, in particular, to have a highly significant impact on Covered Bond ratings. Since Covered Bonds are subject to strict legal requirements, regulatory risk plays an important role in assessing the credit rating.

The Portuguese covered bond legislation defines clear rules to mitigate risks in particular regarding: insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Additionally, Risk management and internal controls as well as the macroeconomic factors such as hedging strategies, interest rates and yield curve are considered to have a highly significant impact on the assessment of the credit rating. Other individual factors with a potential key rating influence were not identified, and therefore did not affect the final rating.

Credit and Portfolio Risk

Cover pool analysis

The analysis of the cover pool is based on public information which has been made available by the Issuer, in particular the Harmonised Transparency Template („HTT") as per regulatory requirements. This information was sufficient according to CRA's rating methodology "Covered Bond Ratings".

At the cut-off-date 30.09.2023, the pool of cover assets consisted of 178,652 debt receivables, of which 100.00% are domiciled in Portugal. The total cover pool volume amounted to EUR 11,313.15 m in residential (100.00%), commercial (0.00%) and others (0.00%) loans.

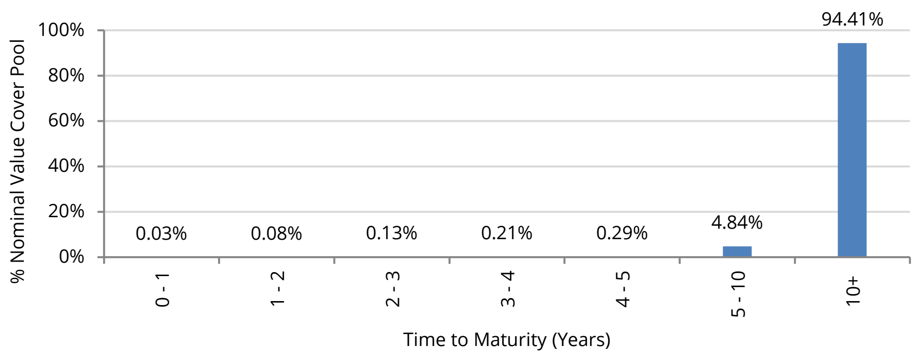
The residential cover pool consists of 178,652 mortgage loans having an unindexed weighted average LTV of 54.03%. The non-residential cover pool does not contain any loans. The ten largest debtors of the portfolio total to 0.19%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: Banco Santander Totta

Characteristics	Value
Cover assets	EUR 11,313 m.
Covered bonds outstanding	EUR 9,700 m.
Substitute assets	EUR 44.50 m.
Cover pool composition	
Mortgages	99.61%
Substitute assets	0.39%
Other / Derivative	0.00%
Number of debtors	NR
Mortgages Composition	
Residential	100.00%
Commercial	0.00%
Other	0.00%
Average asset value (Residential)	EUR 89.42 k.
Average asset value (Commercial)	EUR 0 k.
Non-performing loans	0.0%
10 biggest debtors	0.19%
WA seasoning	93.54 Months
WA maturity cover pool (WAL)	27.22 Years
WA maturity covered bonds (WAL)	5.19 Years

We have listed an extended view of the composition of the cover pool in the appendix section "Cover pool details". The following chart displays the maturity profile of the cover assets at the cut-off date 30.09.2023 (see figure 2):

Figure 2: Distribution by remaining time to maturity I Source: Banco Santander Totta



Maturity profile

The following charts present the cash flow profile of the Issuer (see figure 3 and figure 4):

Figure 3: Cover asset congruence | Source: Banco Santander Totta

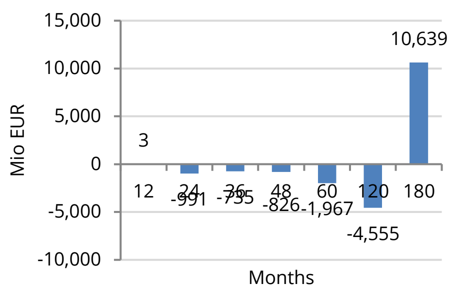
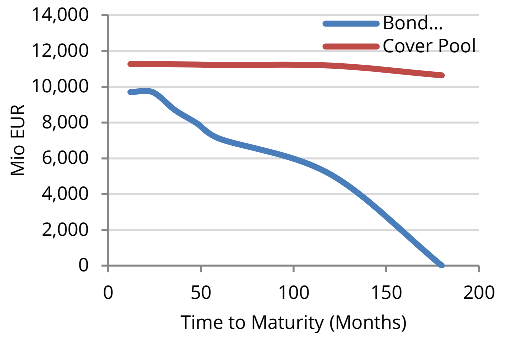


Figure 4: Amortization profile | Source: Banco Santander Totta



During its cash flow modelling, CRA has taken into consideration the maturity structure of cover assets and liabilities. This structure was an integral part of the cash flow analysis.

Interest rate and currency risk

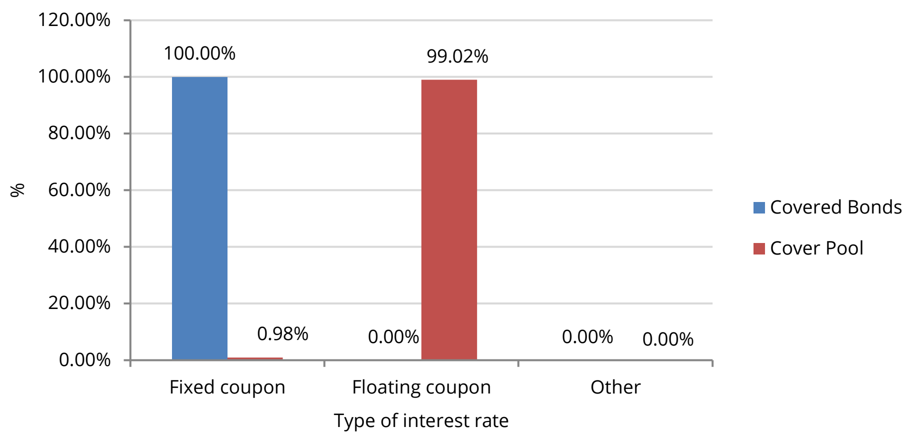
In order to reduce the exposure to the interest rate and currency risks, derivative contracts can be used to hedge these risks. Furthermore, the Portuguese Covered Bond Law stipulates on a monthly basis a coverage testing to anticipate interest rate discrepancies. Currency risk, on the other hand, is also limited for this program as all cover pool assets and cover bonds are denominated in Euros. CRA assumes that the interest rate mismatches are hedged in the form of swap agreements, therefore, CRA did not apply interest rate stresses on the cash flows.

Table 3: Program distribution by currency | Source: Banco Santander Totta

Currency	Volume	Share (%)
Cover Pool		
EUR	11,313 m.	100.00%
Covered Bond		
EUR	9,700 m.	100.00%

Figure 5 shows the types of interest rate used in this program

Figure 5: Type of interest rate | Source: Banco Santander Totta



Credit Risk

The credit risk assessment for Mortgage Covered Bond have been determined in accordance with CRA rating methodology for Covered Bonds by means of historical data and particular parameters from the Covered Bonds.

Due to the high granularity of mortgage pools we have characterized these portfolios as big enough and with a homogeneous composition i.e. ("Large Homogeneous Portfolio", LHP). Furthermore, under that premise we have assumed that it is possible to derive a loss distribution. CRA has used the issuer's historical NPL ratios to derivate a conservative default rate proxy for the approximation through the LHP distribution. For the Banco Santander Totta it has been assumed an expected default rate of 0.25% for the LHP. Furthermore, CRA has considered a 15.00% correlation to define the LHP distribution. Table 4 disclosed the expected default rate for each relevant rating level.

In order to derive recovery and loss-severity base case assumption, CRA has used historical data from mortgage price indexes. To determine loan-level recovery assumptions the resulting stressed recoveries assumptions were compared with the portfolio's existing loan-to-value ratios (LTVs).

Based on the default rates and taking into account the recovery assumptions, the following loss assumptions were determined for the current cover pool (see Table 4):

Table 4: Cover Pool Base case assumptions | Source: CRA

Rating	Default Rate (%)	Recoveries (%)	Expected Loss (%)
A-	10.11%	90.18%	0.99%
BBB+	9.43%	91.31%	0.82%
BBB	8.72%	92.28%	0.67%
BBB-	**7.97%**	**93.19%**	**0.54%**
BB+	6.89%	94.69%	0.37%
BB	5.91%	96.29%	0.22%
BB-	4.87%	97.86%	0.10%

Cash-Flow Analysis

Model Assumptions

Based on public information and using the base case loss assumptions, we implement a scenario-based cash flow model. This model aims to test the ability of the structure to service all covered bonds according to their payment profile in diverse stress scenarios. The CRA cash flow analysis assumes that the Issuer has defaulted, i.e. all obligations will be met using cash flows from the cover pool assets only. We also assume that no additional assets will be added to the cover pool during the wind-down phase.

This program issues covered bonds with soft bullet maturity structure, i.e. a 12 months maturity extension upon the final legal maturity. This characteristic of the covered bonds has been taken into account during our cash-flow analysis.

The cash-flow analysis considers, among other factors, asset value haircuts ("asset-sale discount"), and the possible positive yield spread between covered assets and covered bonds ("yield spreads"). To derive the asset-sale discount, CRA assumes, based on secondary market data, a rating level haircut on the asset value. Furthermore, CRA, using available public information (i.e. issuer's annual accounts), has derived estimations for yield spreads (see table 5):

Table 5: Cash-Flow Model assumptions | Source: CRA

Rating level	Asset-Sale Discount	Yield Spread
A-	52.58%	2.08%
BBB+	49.59%	2.10%
BBB	46.68%	2.12%
BBB-	**43.63%**	**2.14%**
BB+	40.34%	2.17%
BB	36.70%	2.20%
BB-	32.95%	2.22%

Rating Scenarios

In our cash flow model rating scenarios have been tested considering several central input parameters, such as:

- Portfolio composition (diversification, concentration, granularity)
- Probability of default of cover assets
- Correlations of cover assets and systematic risk factors
- Recoveries
- Maturity profile of covered bonds and cover assets (ALM)

Within a BBB- rating scenario, the cash flow model showed that obligations can be paid fully and in a timely manner. Overall, the cash flow analysis revealed that the portfolio, given all used information as of 30.09.2023, may ensure the repayment of bonds' nominal capital notwithstanding the occurrence of the presented stressed scenarios.

Overcollateralization Break-Even Analysis

CRA also performed a break-even OC analysis taking into considerations the following drivers: ALM, Loss level, Interest rate spreads, foreign currency mismatches and Recoveries. Performing the break-even OC analysis, we took rating-level specific stressed outcomes into account. Based on these analyses, the maximum OC required for each relevant rating level during the whole period has been presented in table 6.

Table 6: Breakeven Analysis | Source: CRA

Rating Level	Break-Even OC
BBB-	**16.06%**
BB+	13.87%
BB	11.49%
BB-	9.06%
B+	6.75%
B	4.34%
B-	0.00%

Sensitivity Analysis

CRA also evaluates the sensitivity of the structure and program with respect to important input parameters. In particular, the following factors have been varied:

- Credit quality of cover assets
- Recoveries

The following table presents the rating impact of a decline in recoveries and an increase in the credit risk of single debtors. Starting from the best-case, which is represented by our base case assumptions, the analysis reveals the sensitivity of the rating with respect to recovery rates and credit risk. The worst-case scenario, in which we reduce recoveries by 50% and increase credit risk by 50%, the impact can be seen by a change in the implied rating by 2 notches (see Table 7):

Table 7: Covered Bond Program Sensitivity: Credit Quality und Recovery Rates | Source: CRA

Recovery / Defaults	Base Case	-25%	-50%
Base Case	**BBB-**	BB+	BB
+25%	BB+	BB+	BB
+50%	BB+	BB	BB

In general, based on the presented cash flow analysis results, the rating of the cover pool within our covered bond program rating has been set at BBB-. Consequently, the secondary rating uplift was set at zero (0) notch.

Counterparty Risk

Derivatives

Based on the available information, CRA assumes that the issuer has entered into partial derivative agreements in the form of interest rate swaps.

Commingling

In the event of issuer's bankruptcy, in order to avoid commingling of funds, the Portuguese covered bond law stipulates that the cover assets should be isolated from the general bankruptcy estate (insolvency-free assets) and a special cover pool administrator will be appointed to manage the cover pool. Under that mandate the cover pool administrator will have first priority on the up-coming cash flows from the cover pool assets, which in turn should be used to cover interest and principal payments of the covered bond holders in event of the Issuer's insolvency.

Appendix

Rating History

Event	Rating Date	Publication Date	Result
Initial Rating	18.02.2019	27.02.2019	AAA / Stable
Rating Update	26.02.2020	28.02.2020	AAA / Stable
Monitoring	24.03.2020	28.03.2020	AAA/ Watch negative
Rating Update	16.02.2021	22.02.2021	AA+ / Negative
Monitoring	05.07.2021	06.07.2021	AA+ / Watch UNW
Rating Update	13.01.2022	20.01.2022	AA+ / Stable
Monitoring	02.05.2022	06.05.2022	AA+ / Positive
Rating Update	16.01.2023	20.01.2023	AA+ / Positive
Rating Update	10.01.2024	12.01.2024	AA+ / Positive

Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: Banco Santander Totta

Characteristics	Value
Cover Pool Volume	EUR 11,313 m
Covered Bonds Outstanding	EUR 9,700 m
Substitute Assets	EUR 44 m
Share Derivatives	0.00%
Share Other	100.00%
Substitute Assets breakdown by asset type	
Cash	0.00%
Guaranteed by Supranational/Sovereign agency	0.00%
Central bank	100.00%
Credit institutions	0.00%
Other	0.00%
Substitute Assets breakdown by country	
Issuer country	100.00%
Eurozone	0.00%
Rest European Union	0.00%
European Economic Area	0.00%
Switzerland	0.00%
Australia	0.00%
Brazil	0.00%
Canada	0.00%
Japan	0.00%
Korea	0.00%

New Zealand	0.00%
Singapore	0.00%
US	0.00%
Other	0.00%
Cover Pool Composition	
Mortgages	99.61%
Total Substitute Assets	0.39%
Other / Derivatives	0.00%
Number of Debtors	NR
Distribution by property use	
Residential	100.00%
Commercial	0.00%
Other	0.00%
Distribution by Residential type	
Owner occupied	92.68%
Second home/Holiday houses	7.15%
Buy-to-let/Non-owner occupied	0.00%
Subsidised housing	0.00%
Agricultural	0.00%
Other	0.17%
Distribution by Commercial type	
Retail	0.00%
Office	0.00%
Hotel/Tourism	0.00%
Shopping malls	0.00%
Industry	0.00%
Agriculture	0.00%
Other commercially used	0.00%
Hospital	0.00%
School	0.00%
other RE with a social relevant purpose	0.00%
Land	0.00%
Property developers / Bulding under construction	0.00%
Other	0.00%
Distribution by Country (%)	
Portugal	100.00%
Distribution by Region (%)	
North	31.34%
Center	17.26%
Lisbon	36.25%

Alentejo	4.90%
Algarve	6.18%
Madeira	2.54%
Azores	1.54%

Table 9: Participant counterparties | Source: Banco Santander Totta

Role	Name	Legal Entity Identifier
Issuer	Banco Santander Totta	549300URJH9VSI58CS32
Servicer	Banco Santander Totta, S.A.	549300URJH9VSI58CS32
Account Bank	Banco Santander Totta, S.A.	549300URJH9VSI58CS32
Trustee	BONDHOLDERS, S.L.	959800WU2L0XTAZWXA65
Cover Pool Monitor	Deloitte & Associados, SROC S.A.	-

Table 10: Interest rate and Swap counterparties | Source: Banco Santander Totta

Name	Legal Entity Identifier	Agreement Type
Banco Santander, S.A.	5493006QMFDDMYWIAM13	IR

Figure 6: Arrears Distribution | Source: Banco Santander Totta

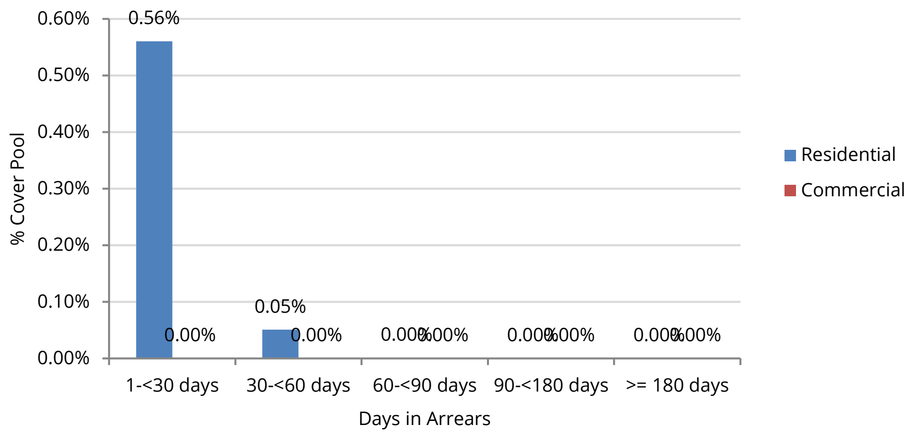


Figure 7: Program currency mismatches | Source: Banco Santander Totta

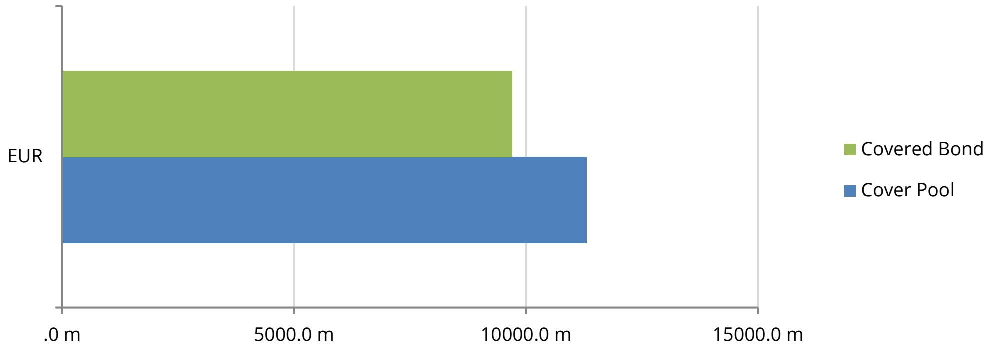
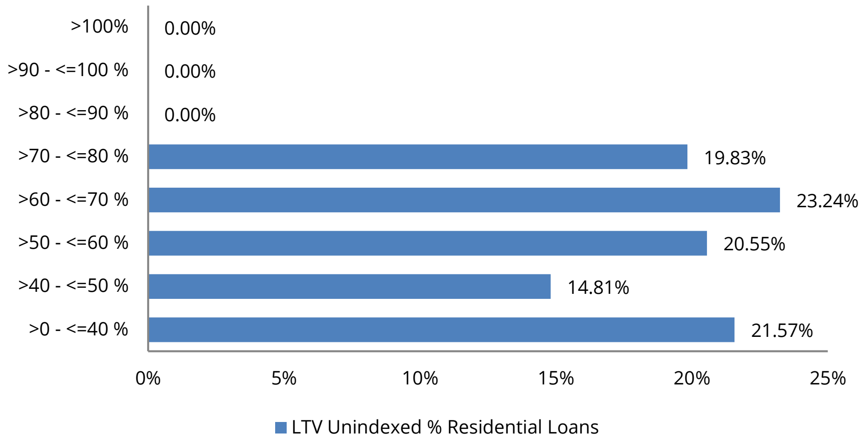


Figure 8: Unindexed LTV breakdown - residential pool | Source: Banco Santander Totta



Key Source of Information

Documents (Date: 30.09.2023)
Issuer ▪ Audited consolidated annual reports of the Banco Santander Group 2019-2022 ▪ Final Rating report as of 19.06.2023 ▪ Miscellaneous Investor Relations Information and Press releases ▪ Other rating relevant data from CRA eValueRate databank
Covered Bond and Cover Pool ▪ HTT Reporting from Banco Santander Totta as of 30.09.2023 ▪ Base prospectus of Mortgage Covered Bond Program dated 09.03.2023 ▪ Market data Mortgage Cover Bond Program

Regulatory and Legal Disclosures

Creditreform Rating AG was neither commissioned by the rating object nor by any other third parties for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in the regulatory sense as an unsolicited rating. The rating was conducted on the basis of Creditreform Rating´s "Covered Bond Ratings" methodology (v1.1, April 2022) and "Technical Documentation Portfolio Loss Distributions" (v.1.0, July 2018) in conjunction with Creditreform`s basic document "Rating Criteria and Definitions" (v1.3, January 2018). On the subject of ESG (environment, social and governance), Creditreform Rating AG has published the basic document "The Impact of ESG Factors on Credit Ratings" (March 2020).

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	NO
With Access to Internal Documents	NO
With Access to Management	NO

The rating is based on publicly available information and internal evaluation methods for the rated bank and program. The issuer's quantitative analysis is based mainly on the latest annual accounts, interim reports, other information of the bank pertaining to investor relations, and key figures calculated by CRA/eValueRate. The cover pool's quantitative analysis for the rated Covered Bond Program was based on the "Harmonised Transparency Template" (HTT) published by the Banco Santander Totta.

Information on the meaning of a rating category, definition of default and sensitivity analysis of relevant key rating assumptions can be found at "Creditreform Rating AG, Rating Criteria and Definitions":

https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html

This rating was carried out by analysts Stephan Giebler (Senior Analyst) and Bruno Passos (Analyst) both based in Neuss/Germany. On 10.01.2024, the rating was presented to the rating committee by the analysts and adopted in a resolution. The function of Person Approving Credit Ratings (PAC) was performed by Christian Konieczny (Senior Analyst).

On 10 January 2024, the rating result was communicated to Banco Santander Totta, and the preliminary rating report was made available. The Issuer and all relevant parties examined the rating report prior to publication and were given at least one full working day to appeal the rating committee decision and provide additional information. The rating decision was not amended following this examination.

The rating is subject to one-year monitoring from the creation date (see cover sheet). Within this period, the rating can be updated. After one year at the latest, a follow-up is required to maintain the validity of the rating.

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is permitted to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Endorsement

Creditreform Rating did not endorse the rating according Article 4 (3), CRA-Regulation.

Conflict of Interests

Creditreform Rating AG ensures that the provision of ancillary services does not present conflicts of interest with its credit rating activities and discloses in the final ratings reports any ancillary services provided for the rated entity or any related third party. The following ancillary services were provided for the rated entity or for third parties associated with the rated entity:

In the case of the provision of ancillary services to the rated entity or a related third party, CRA will disclose all ancillary services in the credit rating report of the issuer.

For the complete list of provided rating and credit service ancillaries please refer to the Creditreform Rating AG's website:

https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html#non-core-business-activities.

Rules on the Presentation of Credit Ratings and Rating Outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our policy "Rating Committee," all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

1. Transaction structure and participants

2. Transaction documents

3. Issuing documents

4. Other rating relevant documentation

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore, CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The rating report and/or Press release indicate the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology, or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies and other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery, and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings, are explained.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks, is indicated clearly and prominently in the rating report and/or Press Release as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the rating report and/or Press Release.

In accordance to Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml.

An explanatory statement of the meaning of Creditreform`s default rates are available in the credit rating methodologies disclosed on the website.

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We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged

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