

Covered Bonds follow-up Rating

UniCredit S.p.A.

Mortgage Covered Bond Program

Creditreform 
Rating

Rating Object	Rating Information	
UniCredit S.p.A., Mortgage Covered Bond Program guaranteed by UniCredit OBG S.r.l.	Rating / Outlook : AA / Stable	Type: Rating Update (unsolicited)
Type of Issuance : Mortgage Covered Bond under Italian law Issuer : UniCredit S.p.A.	Rating Date : 11.11.2022 Rating Renewal until : Withdrawal of the rating Maximum Validity: 01.01.2050 Rating Methodology : CRA „Covered Bond Ratings“	
LT Issuer Rating : BBB- (UniCredit) ST Issuer Rating : L3 Outlook Issuer : Stable		

Program Overview			
Nominal value	EUR 18,250 m.	WAL maturity covered bonds	8.26 Years
Cover pool value	EUR 30,468 m.	WAL maturity cover pool	8.86 Years
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	66.95%/ 7.50%
Repayment method	Soft Bullet	Min. overcollateralization	0.00%
Legal framework	Italian legal framework for OBG	Covered bonds coupon type	Fix (33.15%), Floating (66.85%)

Cut-off date Cover Pool information: 30.09.2022

Rating Action

Content

Rating Action	1
Issuer Risk	2
Structural Risk	2
Liquidity- and Refinancing Risk	4
ESG Criteria	4
Credit and Portfolio Risk	5
Cash-Flow Analysis	8
Counterparty Risk	10
Appendix	11

Analysts

Aaron Kamruzzaman
Lead Analyst
a.kamruzzaman@creditreform-rating.de
+49 2131 109 1948

Qinghang Lin
Analyst
Q.Lin@creditreform-rating.de
+49 2131 109 1938

Neuss, Germany

This follow-up report covers our analysis of the mortgage covered bonds (*Obbligazioni Bancarie Garantite* or OBG) program issued under Italian law by UniCredit S.p.A. („UniCredit“). The total covered bond issuance at the cut-off date (30.09.2022) had a nominal value of EUR 18,250.00 m, backed by a cover pool with a current value of EUR 30,467.98 m. This corresponds to a nominal overcollateralization of 66.95%. The cover assets include Italian mortgages obligations.

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”) upgrades the covered bond program rating to AA from A+. This upgrade is due, among other factors, mainly to increasing nominal overcollateralization, regulatory changes, reduction of default rate and improved stressed recovery assumptions. The AA rating represents a very high level of credit quality and a very low investment risk.

Key Rating Findings

- + Covered Bonds are subject to strict legal framework for covered bonds
- + Covered Bond holders have full recourse to the issuer
- + Current high nominal overcollateralization (OC) of 66.95% as of 30.09.2022
- + Continuous improvement of asset quality with steady reduction of NPL portfolios of the issuer
- UniCredit faces high sovereign exposure to home market, therefore the covered bond program rating is limited to the wellbeing of Italian State (CRA Rating: BBB-/stable)

Table1: Overview results

Risk Factor	Result
Issuer rating	BBB- (rating as of 30.08.2022)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1 st uplift	A+
Cover pool & cash flow analysis	AAA
+ 2 nd rating uplift	+2 Notches ¹
= Rating after 2 nd uplift	AA

Issuer Risk

Issuer

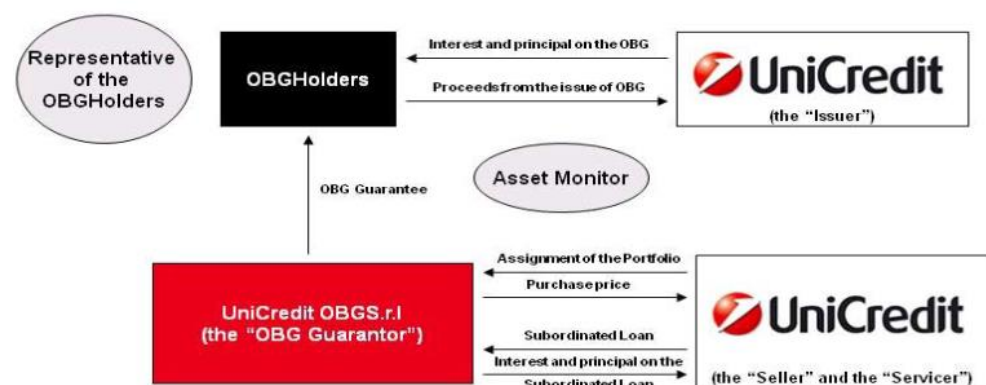
Our rating of UniCredit SpA covered bond program is reflected by our issuer rating opinion of UniCredit SpA (Group) due to its group structure. CRA has affirmed the Long-term rating of UniCredit at BBB- with stable outlook in a Rating Update dated 29.08.2022. The affirmation of the long-term issuer rating is primarily explained by the convincing annual and half-year results, despite substantial non-recurring expenses. The measured handling of the Russian exposure with prudent risk provisioning reduces the risk of an uncontrolled exit. The status 'watch (unknown)' that was assigned with the onset of hostilities in Eastern Europe is hence withdrawn. The rating outlook is therefore considered to be 'stable'.

The bank's rating remains negatively impacted by the high dependence on the Italian home market and the low rating of the Italian Republic ('BBB- (stable)', CRA sovereign rating as of February 11, 2022). For a more detailed overview of the issuer rating, please refer to the webpage of Creditreform Rating AG.

Structural Risk

Transaction structure

Figure1: Overview of Covered Bond emission | Source: UniCredit



¹ Secondary rating uplift has been stipped at 2 notches. More details can be found at Cash-Flow analysis segment

Legal and Regulatory Framework

Italy has firstly incorporated covered bonds in the legal set-up in 2005 by amending the existing Italian securitization law (Law no. 130/1999) on the basis of two additional articles (Law no. 80/2005) dealing with the administration and issuance of Italian covered bonds ('Obbligazioni Bancarie Garantite' (OBG)). The European Commission on November 2019 adopted the legislative package to provide for enhanced harmonisation of the EU covered bond market. Each of the Member States were to implement the Covered Bond Directive by 8 July 2021 and the national measures to be applied at the latest from 8 July 2022. In response to that, Italy implemented the new covered bond framework by the legislative decree n. 190 of 5 November 2021.

The new framework applies to covered bonds issued after the entry into force of the further implementing provisions of the Bank of Italy. The covered bonds issued before the entry into the force of the new legislation, continue to be regulated by the previous Italian framework.

A comprehensive overview of the previous covered bond legislation that governs the OBG, can be found in our initial and follow-up rating reports of UniCredit Mortgage Covered Bonds. The following major provisions describe the status of the current covered bonds legislation in Italy.

The new framework has confirmed the structure of a covered bond transaction already in force. The bank of Italy verifies certain conditions and authorizes programs for the covered bond issuances. While Italian banks do not need a special license to issue covered bonds, they need to fulfil following prerequisites; i) own funds not lower than EUR 250 million; ii) a total capital ratio not lower than 9%. A credit institution delegates eligible cover assets to a special purpose vehicle (SPV), which grants a guarantee for the issued covered bonds in favour of the covered bond holders.

The covered bondholders have direct recourse to the issuer and a preferential claim to the cover pool assets secured primarily by residential mortgages, commercial mortgages, public sector loans and senior mortgage-backed securities, while issuers decide on the structure of cover pools on their own.

All assets transferred to the SPV are part of the cover pool. The geographical scope of legitimate mortgage assets and public sector assets is confined to EEA countries and to Switzerland, while regulatory arrangements are present to ensure that the cover assets are enforceable in the corresponding jurisdiction.

The Italian legal framework stipulates that an external asset monitor has to be nominated by the issuer to supervise the accuracy of the transactions, the soundness of the cover assets as well as the reliability of the covered bond guarantee in favour of the covered bond holders. The asset monitor must be an auditing firm possessing the necessary skills required to perform such duties and must be independent of the issuer and of any other person participating in the transaction.

In case of issuer default, the legal framework has set out duties and powers regarding the special administrative function - i.e. the ongoing management of the covered bonds - which is governed in an independent way and on behalf of the covered bond holders' preferential interests.

In general, we considered the structural framework in Italy as positive as the legal framework for OBG 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. Due to those reasons we have set a rating uplift of four (+4) notches for the structural framework for covered bonds in Italy under OBG.

Liquidity- and Refinancing Risk

The new legal framework has not raised the 0% minimum overcollateralization (OC) for Italian covered bond programs; however, the law permits the Bank of Italy to set minimum OC higher to comply with article 129 of the CRR using secondary legislations. Therefore, Italy requires issuing banks to have assets at least the same amount as the covered bonds outstanding on a nominal and a NPV basis.

Although no mandatory liquidity buffer were specified under the old framework, the new framework introduced a mandatory liquidity buffer, which covers the maximum cumulative liquidity outflow over the next 180 days. Additionally, nominal and present value coverage tests have to be undertaken every six months.

While coverage tests have to be conducted, there are no regulatory obligations for the issuers to perform specific stress tests on their covered bond programs. Derivatives can be an additional measure to hedge interest rate and currency risks. The updated law clarifies that derivative instruments must be concluded as hedging purposes only. However, the derivatives cannot be terminated upon issuer's default or the compulsory liquidation of the bank that issued the covered bonds.

Covered bonds are issued in the forms of hard bullet, soft bullet and/or conditional pass through maturity structure, i.e. a final repayment with/without extension optionality at the end of the term. Maturity mismatches between cover assets and liabilities thus may (soft bullet and conditional pass through) or may not (hard bullet) be mitigated by extension of the legal final maturity of respective covered bonds. This feature of covered bond programs is considered within our cash flow analysis.

In the event of the issuer's insolvency, the framework stipulates that the special administrator can sell assets of the cover pool or use them as a guarantee for liquidity operations if liquidity shortfalls are foreseeable.

In general, sufficient structural protection mechanisms for the liquidity and risk management have been established with the mandatory introduction of a liquidity buffer of 180 days, minimum overcollateralization and due to the possible postponement of maturities upto 12 months for the soft-bullet covered bonds. We assess the overall legal provisions on liquidity management for covered bonds (OBG) programs issued in Italy as positive 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 Italian legal framework for covered bonds defines clear rules to mitigate risks in particular regarding insolvency remoteness, investor's special claim vis-à-vis other creditors, among other provisions. Additionally, risk management and internal controls as well as 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 30.09.2022, the pool of cover assets consisted of 371,494 debt receivables from 352,174 debtors, of which 100% are domiciled in Italy. The total cover pool volume amounted to EUR 30,467.98 m in residential (98.46%), commercial (1.54%) and others (0.00%) loans.

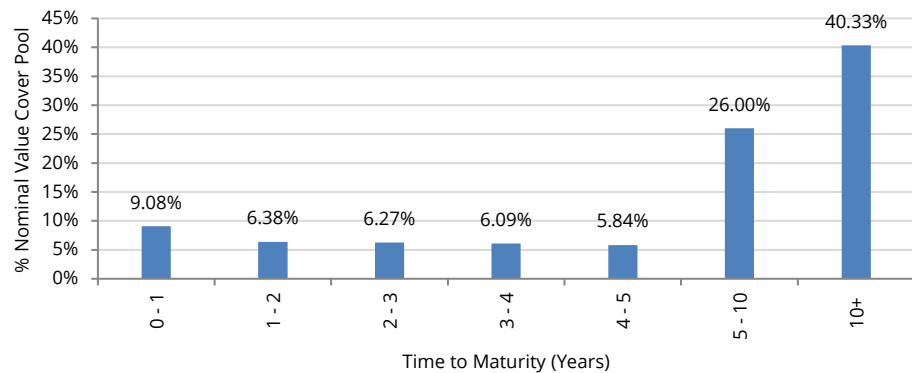
The residential cover pool consists of 367,898 mortgage loans having an unindexed weighted average LTV of 48.82%. The non-residential cover pool consists of 3,596 mortgage loans having an unindexed weighted average LTV of 21.10%. The ten largest debtors of the portfolio total to 0.22%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: UniCredit

Characteristics	Value
Cover assets	EUR 30,468 m.
Covered bonds outstanding	EUR 18,250 m.
Substitute assets	EUR 791.20 m.
Cover pool composition	
<i>Mortgages</i>	97.40%
<i>Substitute assets</i>	2.60%
<i>Other / Derivative</i>	0.00%
Number of debtors	352,174
Mortgages Composition	
<i>Residential</i>	98.46%
<i>Commercial</i>	1.54%
<i>Other</i>	0.00%
Average asset value (Residential)	EUR 79.42 k.
Average asset value (Commercial)	EUR 0.00 k.
Non-performing loans	0.0%
10 biggest debtors	0.22%
WA seasoning	75.43 Months
WA maturity cover pool (WAL)	8.86 Years
WA maturity covered bonds (WAL)	8.26 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 30.09.2022 (see figure 2):

Figure 2: Distribution by remaining time to maturity | Source: UniCredit



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: UniCredit

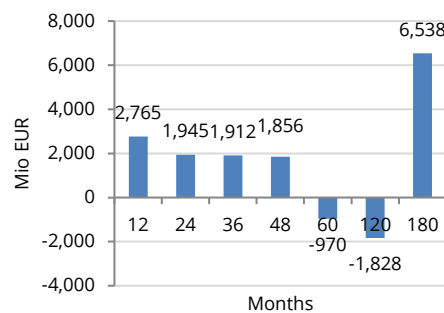
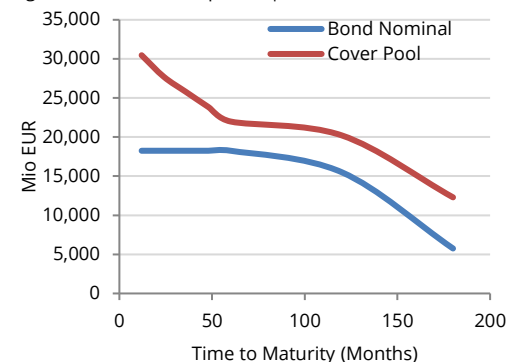


Figure 4: Amortization profile | Source: UniCredit



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

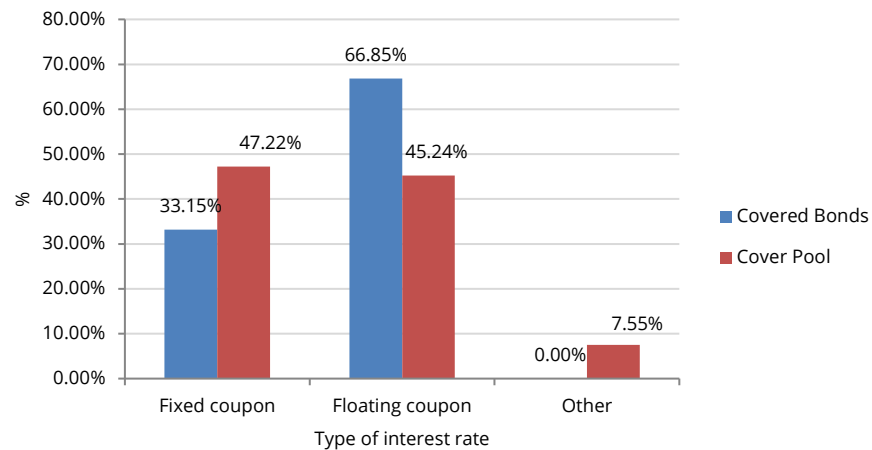
The legal framework does not stipulate any obligatory stress tests to anticipate interest rate and currency discrepancies. However, all the cover pool assets and covered bonds are denominated in euros, which mitigate the currency risks. On the other hand, 45.2% of cover pool assets and 66.8% of covered bonds have floating interest rates, which possess interest rate risks. As the available documentation does not reveal the derivatives agreement in full extent, CRA has applied interest rate stresses on the cash flows at each rating level according to its methodology.

Table 3: Program distribution by currency | Source: UniCredit

Currency	Volume	Share (%)
<i>Cover Pool</i>		
EUR	30,468 m.	100.00%
<i>Covered Bond</i>		
EUR	18,250 m.	100.00%

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

Figure 5: Type of interest rate | Source: UniCredit



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 UniCredit it has been assumed an expected default rate of 3.24% 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. Compared to last rating update, expected loss decreased significantly due to the reduction in default rate and improved stressed recovery assumptions. The latter is caused by the general improvements of the residential real estate market (see Table 4)

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

Rating	Default Rate (%)	Recoveries (%)	Expected Loss (%)
AAA	56.94%	77.79%	12.65%
AA+	54.53%	79.61%	11.12%
AA	49.14%	83.84%	7.94%
AA-	45.11%	87.07%	5.83%

A+	43.25%	88.16%	5.12%
A	43.23%	88.17%	5.12%
A-	42.25%	88.77%	4.75%

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 covered bond program recently amended the repayment method of covered bonds from conditional pass through to soft-bullet maturity structure, i.e. an extension of maturities up to 12 months. This feature has been considered quantitatively 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”). CRA, using available public information (i.e. issuer’s annual accounts), has derived estimations for yield spreads.

Since the covered bond program has now soft-bullet maturity structure instead of conditional pass through, CRA’s analysis assumes that refinancing gaps due to ALM will be closed by a sale of assets from the cover pool if liquidity shortfall are foreseeable after the extended maturities. In doing so, we take into account related costs in the form of a discount to the nominal value. To derive the asset-sale discount, CRA assumes, based on secondary market data, a rating level haircut on the asset value (see table 5):

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

Rating level	Asset-Sale Discount	Yield Spread
AAA	72.93%	0.76%
AA+	67.35%	0.80%
AA	63.75%	0.83%
AA-	60.33%	0.86%
A+	57.70%	0.88%
A	55.54%	0.89%
A-	52.72%	0.91%

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 AAA 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 30.09.2022, 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
AAA	37.32%
AA+	34.01%
AA	28.39%
AA-	24.39%
A+	22.73%
A	22.45%
A-	21.36%

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 reduction of base case rating by 6 notches to A- (see Table 7):

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

Recovery	Base Case	-25%	-50%
Defaults			
Base Case	AAA	AAA	AA+
+25%	AAA	AAA	AA-
+50%	AAA	AA+	A-

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 AAA.

The cover pool rating experienced positive changes in comparison to the previous rating update due to regulatory changes, increasing OC and reduction in expected loss, among other factors.

However, the program's recent history reveals a significant volatility with regard to OC levels, and high program sensitivity with regards to credit quality and recovery rates. CRA has considered such behaviour within the assessment of the covered bond program. Hence, the secondary rating uplift was stipped at two (+2) notches with a stable outlook. OC levels and sensitivity developments will be closely monitored during the monitoring phases.

Counterparty Risk

Derivatives

Based on available information on HTT, there is an indication that the issuer has entered into derivative agreements in the form of interest rate swaps with UniCredit S.p.A., however, the full extent of this agreement is not revealed.

Commingling

Incoming cash flows generated from the cover pool will normally be transferred to the Issuer and will be forwarded to the covered bond holders according to the payment terms and conditions. Should the issuer become bankrupt, there is a risk ("commingling risk") that funds may not be returned and commingled with the insolvency estate of the issuer. In order to avoid such risk, the legal framework for OBG stipulates that the cover assets should be isolated from the general bankruptcy estate (insolvency-free assets) and the SPV has to organize the remaining liabilities of the issuer and has to fulfil payments at the time of their original contractual maturity, while the SPV will also be appointed to enforce the rights of the covered bond holders against the issuer in the bankruptcy proceedings.

Appendix

Rating History

Event	Rating Date	Publication Date	Result
Initial Rating	11.02.2019	25.02.2019	A+ / stable
Rating Update	09.03.2020	13.03.2020	A+ / stable
Monitoring	24.03.2020	28.03.2020	A+ / watch negative
Rating Update	18.01.2021	22.01.2021	A+ / stable
Monitoring	05.07.2021	06.07.2021	A+ / watch unknown
Rating Update	18.01.2022	24.01.2022	A+ / stable
Monitoring	15.03.2022	17.03.2022	A+ / watch unknown
Rating Update	11.11.2022	17.11.2022	AA/ Stable

Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: UniCredit

Characteristics	Value
Cover Pool Volume	EUR 30,468 m
Covered Bonds Outstanding	EUR 18,250 m
Substitute Assets	EUR 791 m
Share Derivatives	0.00%
Share Other	100.00%
Substitute Assets breakdown by asset type	
Cash	100.00%
Guaranteed by Supranational/Sovereign agency	0.00%
Central bank	0.00%
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	97.40%
Total Substitute Assets	2.60%
Other / Derivatives	0.00%
Number of Debtors	352174
Distribution by property use	
Residential	98.46%
Commercial	1.54%
Other	0.00%
Distribution by Residential type	
Occupied (main home)	72.38%
Second home	27.62%
Non-owner occupied	0.00%
Agricultural	0.00%
Multi family	0.00%
Other	0.00%
Distribution by Commercial type	
Retail	68.95%
Office	7.29%
Hotel/ Tourism	4.07%
Shopping center	0.00%
Industry	10.91%
Agriculture	0.00%
Other commercially used	0.00%
Hospital	0.00%
School	0.00%
other RE with a social relevant purpose	0.00%
Land	0.32%
Property developers / Bulding under construction	3.57%
Other	4.89%
Average asset value (Residential)	EUR 79.42 k
Average asset value (Commercial)	EUR 127.00 k
Share Non-Performing Loans	0.30%
Share of 10 biggest debtors	0.22%
WA Maturity (months)	210.71
WAL (months)	106.32
Distribution by Country (%)	
Italy	100.00
Distribution by Region (%)	
ABRUZZO	0.97
BASILICATA	0.22
CALABRIA	0.60
CAMPANIA	4.48
EMILIA ROMAGNA	9.10
FRIULI VENEZIA GIULIA	2.09

LAZIO	16.00
LIGURIA	2.33
LOMBARDIA	20.69
MARCHE	1.73
MOLISE	0.26
PIEMONTE	9.56
PUGLIA	4.60
SARDEGNA	1.18
SICILIA	8.27
TOSCANA	5.12
TRENTINO ALTO ADIGE	1.34
UMBRIA	1.89
VALLE D'AOSTA	0.23
VENETO	9.33

Table 9: Participant counterparties | Source: UniCredit

Role	Name	Legal Entity Identifier
Issuer	UniCredit S.p.A.	549300TRUWO2CD2G5692
Servicer	UniCredit S.p.A.	549300TRUWO2CD2G5692
Account Bank	HSBC Plc	MP6I5ZYZBEU3UXPYFY54

Table 10: Interest rate and Swap counterparties | Source: UniCredit

Name	Legal Entity Identifier	Agreement Type
UniCredit S.p.A.	549300TRUWO2CD2G5692	Interest rate swaps

Figure 6: Arrears Distribution | Source: UniCredit

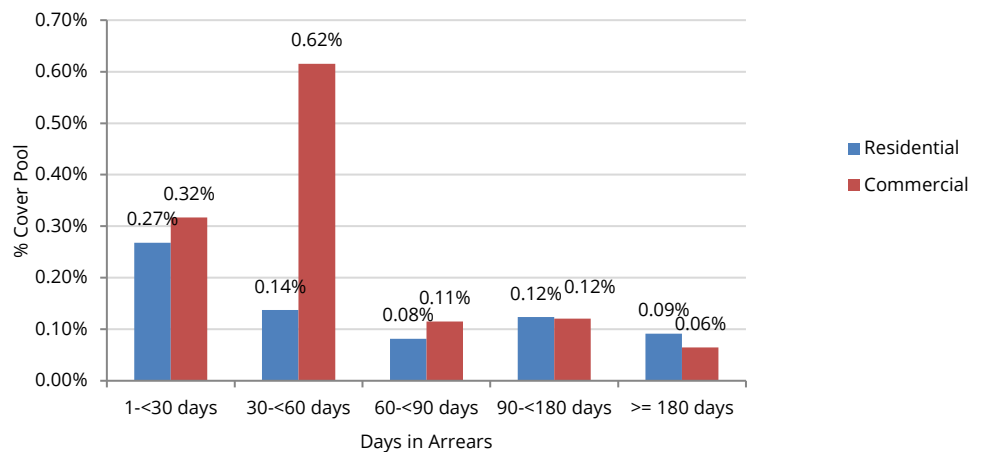


Figure 7: Program currency mismatches | Source: UniCredit

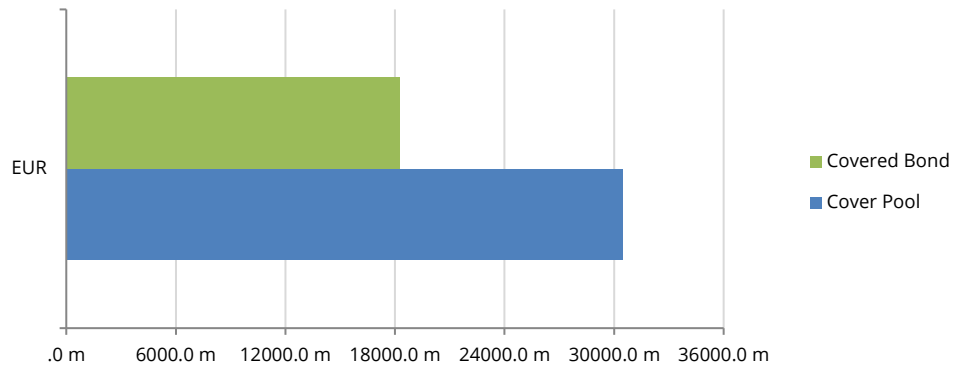


Figure 8: Unindexed LTV breakdown - residential pool | Source: UniCredit

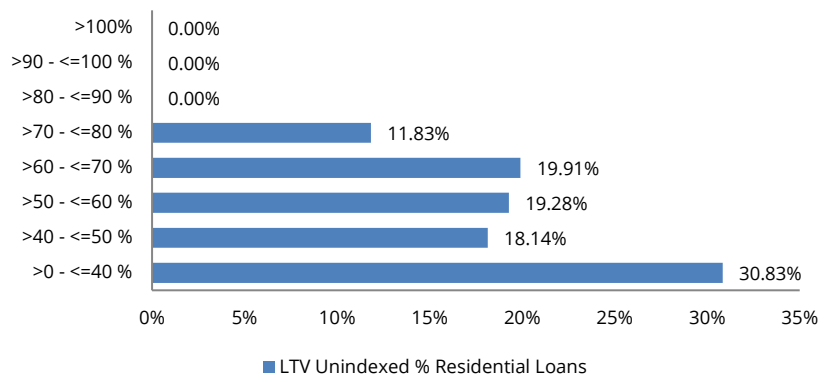
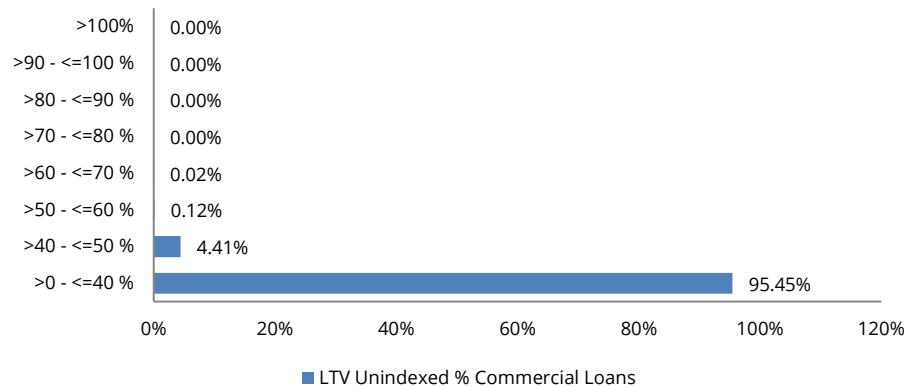


Figure 9: Unindexed LTV breakdown - commercial pool | Source: UniCredit



Key Source of Information

Documents (Date: 30.09.2022)

Issuer

- Audited consolidated annual reports of UniCredit SpA (Group) 2018-2021
- Final Rating report as of 29.08.2022
- Miscellaneous Investor Relations Information and Press releases
- Other rating relevant data from CRA eValueRate databank

Covered Bond and Cover Pool

- HTT Reporting from UniCredit as of 30.09.2022
- Base Prospectus of UniCredit Mortgage Covered Bond Program dated 07.06.2022
- Market data Mortgage Covered 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 UniCredit.

A complete description of Creditreform Rating's rating methodologies and Creditreform's basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Aaron Kamruzzaman (Analyst) and Qinghang Lin (Analyst) both based in Neuss/Germany. On 11.11.2022, 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 11.11.2022, the rating result was communicated to UniCredit, 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

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks.

In the event of provision of ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report of the issuer.

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.

Disclaimer

Any rating performed by Creditreform Rating AG is subject to the Creditreform Rating AG Code of Conduct which has been published on the web pages of Creditreform Rating AG. In this Code of Conduct, Creditreform Rating AG commits itself – systematically and with due diligence – to establish its independent and objective opinion as to the sustainability, risks and opportunities concerning the enterprise or the issue under review.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

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 contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

This report is protected by copyright. Any commercial use is prohibited without prior written permission from Creditreform Rating AG. Only the full report may be published in order to prevent distortion of the report's overall assessment. Excerpts may only be used with the express consent of Creditreform Rating AG. Publication of the report without the consent of Creditreform Rating AG is prohibited. Only ratings published on the Creditreform Rating AG web pages remain valid.

Creditreform Rating AG

Contacts

Creditreform Rating AG

Europadamm 2-6
D - 41460 Neuss

Fon +49 (0) 2131 / 109-626
Fax +49 (0) 2131 / 109-627
E-Mail info@creditreform-rating.de
Internet www.creditreform-rating.de

CEO:
Dr. Michael Munsch
Chairman of the board:
Michael Bruns

HRB 10522, Amtsgericht Neuss