

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 : A+ / Stable	Type: Rating Update (unsolicited)
Type of Issuance : Mortgage Covered Bond under Italian law Issuer : UniCredit S.p.A.	Rating Date : 09.03.2020 Rating Renewal until : Withdrawal of the rating	
LT Issuer Rating : BBB- (UniCredit) ST Issuer Rating : L3 Outlook Issuer : Stable	Rating Methodology : CRA „Covered Bond Ratings“	

Program Overview			
Nominal value	EUR 24.050 m.	WAL maturity covered bonds (initial)	6,94 Years
Cover pool value	EUR 26.927 m.	WAL maturity cover pool (contractual)	10,74 Years
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	11,96%/ 7,53%
Repayment method	Conditional Pass-Through	Min. overcollateralization	0,00%
Legal framework	Italian legal framework for OBG	Covered bonds coupon type	Fix (29,31%), Floating (70,69%)

Cut-off date Cover Pool information: 31.12.2019.

Rating Action

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This follow-up report covers our analysis of the mortgage covered bonds (*Obbligazioni Bancarie Garantite* or OBG) program issued under the Italian law by UniCredit S.p.A. („UniCredit“). The total covered bond issuance at the cut-off date (31.12.2019) had a nominal value of EUR 24.050,00 m, backed by a cover pool with a current value of EUR 26.927,32 m. This corresponds to a nominal overcollateralization of 11,96%. The cover assets include Italian mortgages obligations in Italy.

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 an A+ rating. The A+ rating represents a high level of credit quality and low investment risk.

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Key Rating Findings

- + Covered Bonds are subject to strict legal requirements (legal framework for OBG)
- + Covered bonds are backed by the appropriate cover asset class
- + Covered bond holders have recourse to the issuer
- Low asset quality despite considerable improvements through the reduction of its non-performing exposures and the accelerated run down of its non-core portfolio
- The covered bond program final rating is limited to the issuer rating

Table1: Overview results

Risk Factor	Result
Issuer rating	BBB- (rating as of 16.10.2019)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1 st uplift	A+
Cover pool & cash flow analysis	BB
+ 2 nd rating uplift	+/-0
= Rating covered bond program	A+

Issuer Risk

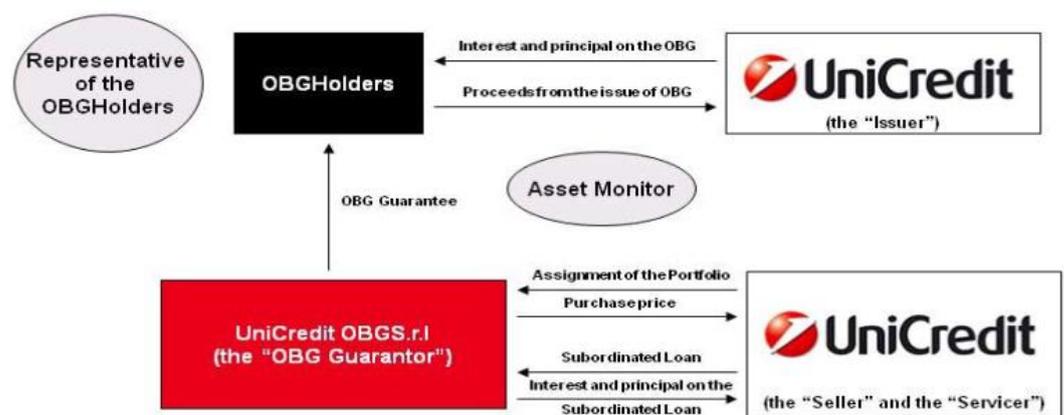
Issuer

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 issuer rating of UniCredit SpA (Group) at 'BBB-' in a Rating Update dated 16 October 2019. Responsible for this affirmation were the low asset quality despite considerable improvements, average earnings figures and the moderate capitalization. For a more detailed overview of the issuer rating, please refer to the report published on the webpage of Creditreform Rating AG.

Structural Risk

Transaction structure

Figure1: Overview of Covered Bond emission | Source: UniCredit



Legal and Regulatory Framework

In Italy, no distinct and independent legal framework exists which specifies the regulation of covered bonds by law. 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)).

While Italian banks do not need a special license to issue covered bonds, 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 have to be nominated by the issuer and he or she has 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.

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.

Liquidity- and Refinancing Risk

According to the legal framework and the Italian Ministry of Economy, assets have to be at least the same amount as the covered bonds outstanding on a nominal and a NPV basis. Thus, Italy requires issuing banks to stick to an overcollateralization (OC) level of at least 0% on a nominal and a NPV basis.

No requirements with respect to liquidity risks, i.e. a mandatory liquidity buffer, are specified within the legal framework. However, nominal and present value coverage tests have to be undertaken every six months.

While coverage tests have to be conducted, the legal framework does not stipulate any prescription to do stress tests. However, derivative instruments can be an additional measure to hedge market risks, like interest rate and currency risks.

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.

The European Commission on April 2019 has also adopted the directive to provide for enhanced harmonisation of the EU covered bond market. Once fully implemented, the directive might

have a potential impact on legal and regulatory framework on the issuer and the covered bonds of each EU member states.

In general, sufficient structural safeguards are not established due to the absence of compulsory liquidity buffers and no obligation to conduct stress tests for interest rate and currency risks. Nevertheless, we assess the overall legal provisions on liquidity management for covered bond (OBG) programs issued in Italy and set a rating uplift of only one (+1) notch.

For a more comprehensive overview of the regulatory framework for Italian covered bond (OBG) program, please refer to our initial rating report of UniCredit SpA covered bonds published on February 2019.

Conditional Pass-Through Overview

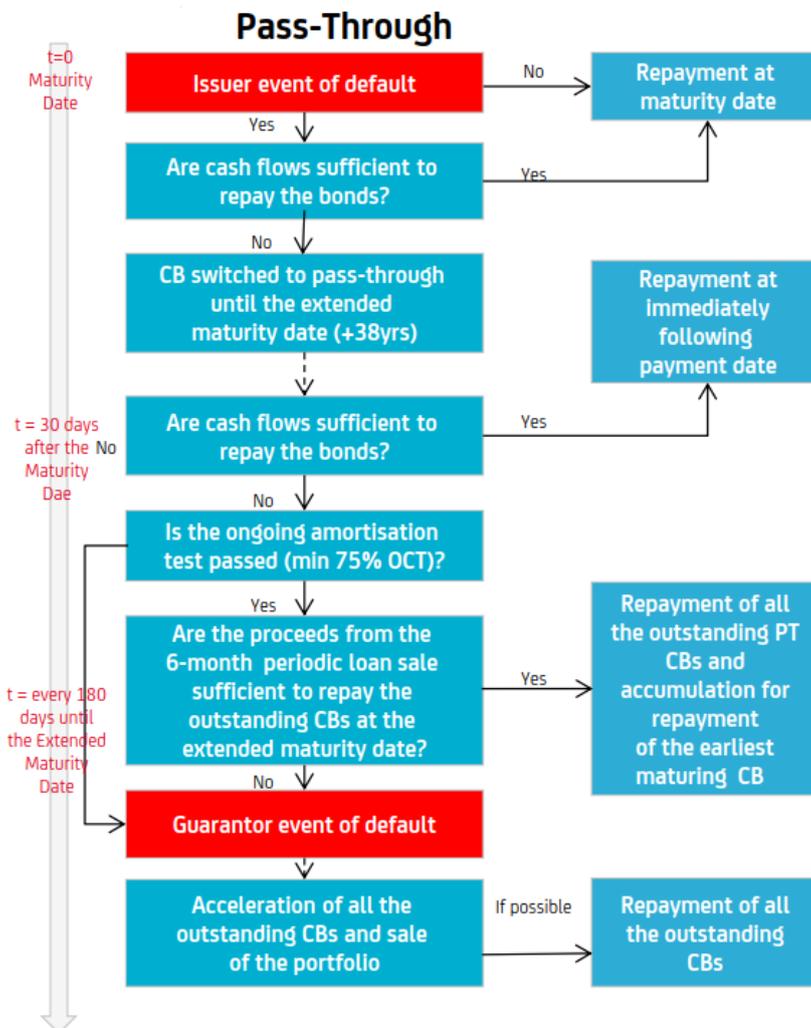
In conditional-pass through maturity structure, maturity mismatches between cover assets and liabilities can be mitigated by the extension of the legal final maturities of respective covered bonds. 'Pass-Through OBG' means any series in respect of which: (i) the issuer has defaulted and fails to redeem the OBG on the applicable maturity date and (ii) the OBG guarantor has insufficient funds to redeem the OBG on the relevant maturity date.

For UniCredit OBG, if the issuer becomes insolvent and the OBG guarantor has insufficient funds to repay the full OBG at the maturity date, the OBG becomes pass-through and the legal maturity is extended by 38 years. Once pass-through, payment of all unpaid amounts will be deferred automatically until 38 years, provided that any unpaid amount will be paid by the guarantor on any OBG payment date up to the extended period. However, the guarantor may sell a random part of the cover pool in every six months if only sale proceeds are sufficient to redeem the relevant pass-through OBG without incurring a loss and to make provisions towards accumulation for the earliest maturing OBG, without deteriorating the Amortisation Test.

An amortisation test is carried out after the issuer event of default. The purpose of the test is to ensure that the cover assets, adjusted after taking into account the arrears and defaults, are at least equal to the outstanding covered bonds. For UniCredit OBG, the amortisation test is set at 75% of the OC applicable before the occurrence of an issuer default. Failure to satisfy the amortisation test will constitute a guarantor event of default.

Breach of such test allows the representatives of the OBG holders to serve a guarantor acceleration notice if directed by an extraordinary resolution of the OBG holders. Upon servicing the notice, the OBG becomes immediately due and payable together, irrespective of their scheduled maturity. A flow chart of the UniCredit pass-through OBG mechanism has been presented in figure 2:

Figure 2: UniCredit Conditional Pass-Through OBG Mechanism | Source: UniCredit



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 31.12.2019, the pool of cover assets consisted of 331.135 debt receivables, of which 100% are domiciled in Italy. The total cover pool volume amounted to EUR 26.927,32 m in residential (96,28%), commercial (3,72%) and others (0,00%) loans.

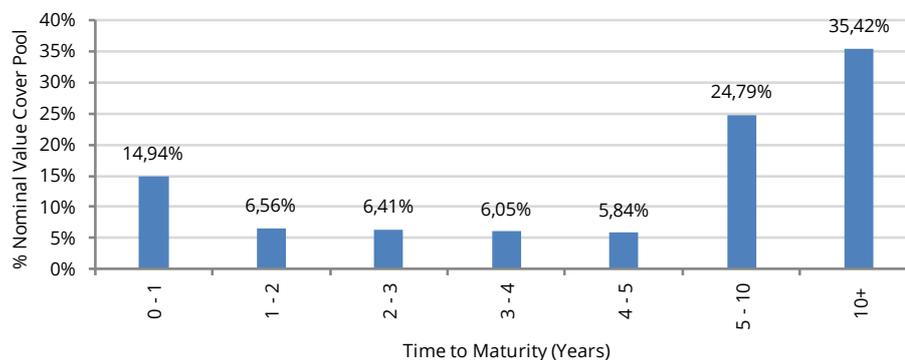
The residential cover pool consists of 325.436 mortgage loans having an unindexed weighted average LTV of 47,81%. The non-residential cover pool consists of 5.699 mortgage loans having an unindexed weighted average LTV of 25,09%. The ten largest debtors of the portfolio total to 0,50%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: UniCredit

Characteristics	Value
Cover assets	EUR 26.927 m.
Covered bonds outstanding	EUR 24.050 m.
Substitute assets	EUR 2.203,07 m.
Cover pool composition	
<i>Mortgages</i>	91,82%
<i>Substitute assets</i>	8,18%
<i>Other / Derivative</i>	0,00%
Number of debtors	NA
Mortgages Composition	
<i>Residential</i>	96,28%
<i>Commercial</i>	3,72%
<i>Other</i>	0,00%
Average asset value (Residential)	EUR 73,15 k.
Average asset value (Commercial)	EUR 161,32 k.
Non-performing loans	0,67%
10 biggest debtors	0,50%
WA seasoning	82,04 Months
WA maturity cover pool (WAL)	10,74 Years
WA maturity covered bonds (WAL)	6,94 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 31.12.2019 (see figure 3):

Figure 3: Distribution by remaining time to maturity | Source: UniCredit



Maturity profile

The following charts present the cash flow profile of the Issuer (see figure 4 and figure 5):

Figure 4: Cover asset congruence | Source: UniCredit

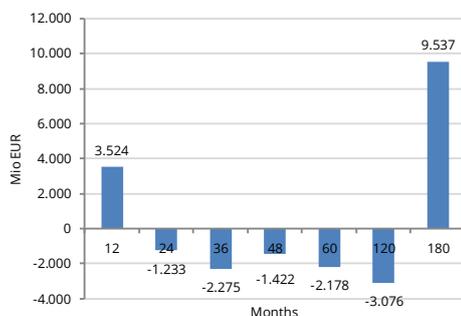
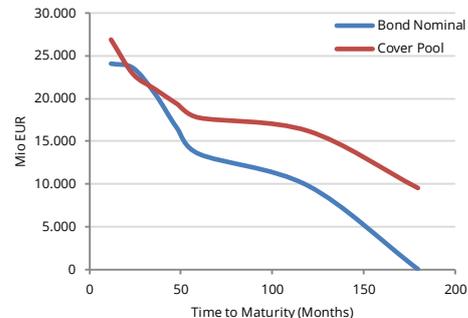


Figure 5: Amortization profile | Source: UniCredit



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

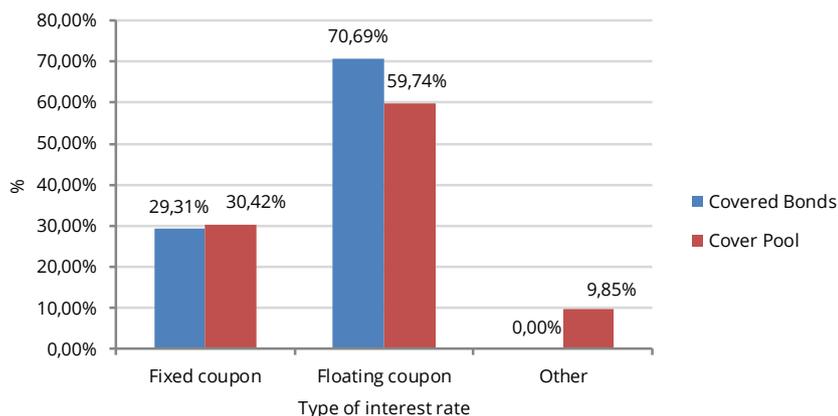
This covered bond program does not use derivatives to hedge interest rate- and currency risks. In addition, the legal framework does not stipulate any obligatory stress tests to anticipate interest rate and currency discrepancies. However, all the cover assets and covered bonds are denominated in euros that mitigates the currency risks. On the other hand, 59,74% of cover pool assets and 70,69% of covered bonds have floating interest rates (see Figure 6), which possess significant interest rate risks. Therefore, CRA has applied interest rate stresses on the cash flows at each rating level according to the methodology.

Table 3: Program distribution by currency | Source: UniCredit

Currency	Volume	Share (%)
<i>Cover Pool</i>		
EUR	26.927 m.	100,00%
<i>Covered Bond</i>		
EUR	24.050 m.	100,00%

Figure 6 shows the types of interest rate used in this program

Figure 6: 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 4,21% 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 (%)
BBB	50,85%	46,93%	26,99%
BBB-	49,54%	51,50%	24,03%
BB+	47,38%	56,43%	20,65%
BB	44,88%	63,28%	16,48%
BB-	42,03%	71,72%	11,89%
B+	39,52%	78,68%	8,43%
B	37,13%	83,90%	5,98%

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 issues covered bonds in the form of conditional pass through maturity structure, i.e. a final repayment with up to 38 years extension optionality at the end of the term. During its cash-flow analysis, CRA assumes that the covered bonds become pass-through and the legal maturities of the bonds are extended until the above-mentioned period.

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.

However, for liquidity needs due to asset-liability mismatches, the guarantor may sell a random part of the cover assets in every six months if only sale proceeds are sufficient to redeem the relevant pass-through cover bonds without incurring a loss. During its cash-flow analysis, CRA, therefore, assumes that no fire sale of the cover assets takes place during the pass-through phase (see table 5):

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

Rating level	Asset-Sale Discount	Yield Spread
BBB	0,00%	1,36%
BBB-	0,00%	1,37%
BB+	0,00%	1,38%
BB	0,00%	1,39%
BB-	0,00%	1,40%
B+	0,00%	1,41%
B	0,00%	1,42%

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 BB 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 31.12.2019, 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	22,41%
BBB-	18,54%
BB+	14,43%
BB	9,70%
BB-	7,53%

B+	7,53%
B	7,53%

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. Based on the base case, there is a high sensitivity of rating in terms of decreased recovery rates and increased defaults. In the worst-case scenario, i.e. a 50% decrease in the base case assumptions leads to a reduction in the base-case rating by 6 notches (see Table 7):

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

Recovery	Base Case	-25%	-50%
Defaults			
Base Case	BB	B+	CCC
+25%	BB-	B	CCC
+50%	BB-	B-	CC

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 BB. This, however, did not ensure any secondary rating uplift which has been set at zero (0) notch.

Counterparty Risk

Derivatives

No derivatives in use at present.

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

Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: UniCredit

Characteristics	Value
Cover Pool Volume	EUR 26.927 m.
Covered Bonds Outstanding	EUR 24.050 m.
Substitute Assets	EUR 2.203 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	91,82%
Total Substitute Assets	8,18%

Other / Derivatives	0,00%
Number of Debtors	NA
Distribution by property use	
Residential	96,28%
Commercial	3,72%
Other	0,00%
Distribution by Residential type	
Occupied (main home)	76,65%
Second home	23,35%
Non-owner occupied	0,00%
Agricultural	0,00%
Multi family	0,00%
Other	0,00%
Distribution by Commercial type	
Retail	70,61%
Office	7,28%
Hotel	3,40%
Shopping center	0,00%
Industry	11,07%
Land	0,23%
Other	7,40%
Average asset value (Residential)	EUR 73 k.
Average asset value (Commercial)	EUR 161 k.
Share Non-Performing Loans	0,67%
Share of 10 biggest debtors	0,50%
WA Maturity (months)	199,86
WAL (months)	128,84
Distribution by Country (%)	
Italy	100
Distribution by Region (%)	
ABRUZZO	0,98
BASILICATA	0,21
CALABRIA	0,71
CAMPANIA	4,54
EMILIA ROMAGNA	9,26
FRIULI VENEZIA GIULIA	2,08
LAZIO	16,31
LIGURIA	2,27
LOMBARDIA	19,68
MARCHE	1,69

MOLISE	0,27
PIEMONTE	9,86
PUGLIA	4,41
SARDEGNA	1,18
SICILIA	9,29
TOSCANA	4,64
TRENTINO ALTO ADIGE	1,11
UMBRIA	2,04
VALLE D'AOSTA	0,22
VENETO	9,26

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	UniCredit S.p.A.	549300TRUWO2CD2G5692
Sponsor	Not relevant for the issuer and/or CB programme at the present time	Not relevant for the issuer and/or CB programme at the present time

Figure 7: Arrears Distribution | Source: UniCredit

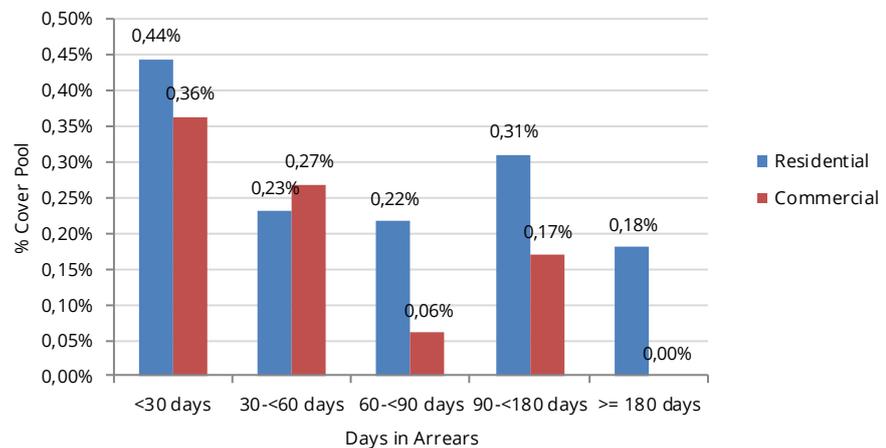


Figure 8: Program currency mismatches | Source: UniCredit

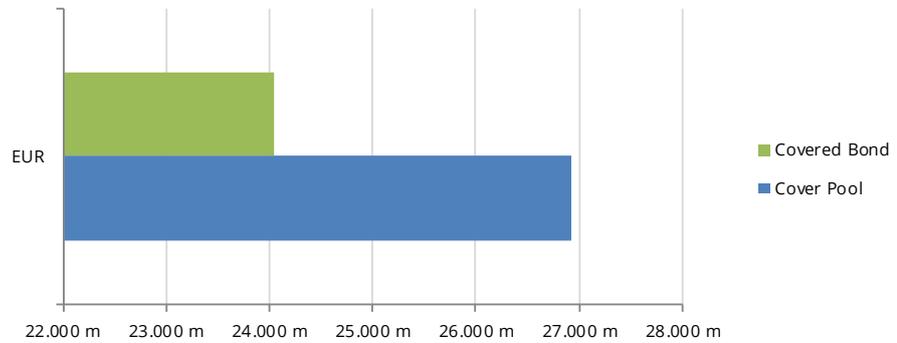


Figure 9: Unindexed LTV breakdown - residential pool | Source: UniCredit

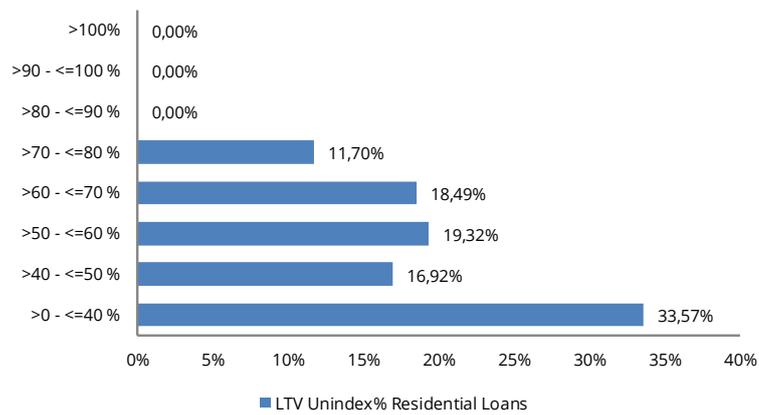
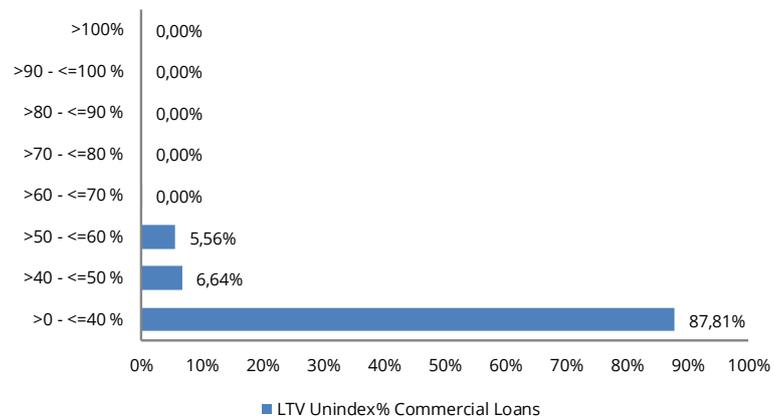


Figure 10: Unindexed LTV breakdown - commercial pool | Source: UniCredit



Key Source of Information

Documents (Date: 31.12.2019)

Issuer

- Audited consolidated annual reports of UniCredit SpA (Group) 2015-2018
- Final rating update dated 16.10.2019 based on the update dated 03.08.2018 and rating report as of 12.01.2018
- Rating File 2019
- Miscellaneous Investor Relations Information and Press releases
- Peergroup-Data and other data from the eValueRate/CRA Databank

Covered Bond and Cover Pool

- HTT Reporting from UniCredit as of 31.12.2019
- 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 and "Technical Documentation Portfolio Loss Distributions" in conjunction with Creditreform's basic document "Rating Criteria and Definitions".

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 eValueRate/CRA subject to a peer group analysis of 24 competing institutes. 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 AFM Kamruzzaman and Qinghang Lin both based in Neuss/Germany. On 09.03.2020, the rating was presented to the rating committee by the analysts and adopted in a resolution.

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.

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.

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

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 "Basic data" information card indicates 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 "Basic data" card 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".

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