

# Creditreform Covered Bond Rating

Commerzbank AG

Mortgage Covered Bond Program



## Rating Object

Country Issuer	Germany	Repayment method	Hard Bullet
Cover pool asset class	Mortgage		Min (2,00%)
Legal framework	German Pfandbrief Act	Overcollateralization	Current (63,35%)
Nominal value	EUR 17.780,43 m.		Committed (NA)
Cover pool value	EUR 29.044,30 m.		Fix (99,44%)
WAL maturity covered bonds	5,67 (Years)	Covered bonds coupon type	Floating (0,56%)
WAL maturity cover pool	5,68 (Years)		Other (0,00%)
Cut-off date Covered Pool Information:		31.12.2019	

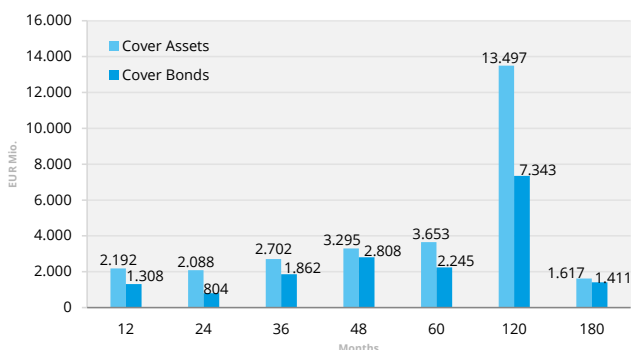
## Rating Overview

Rating Summary		Credit Risk Metrics	
Issuer	Commerzbank AG	Metrics date	11.12.2019
LT Issuer Rating	BBB+	Rating Case Default Rate	38,01%
ST Issuer Rating	L2	Rating Case Recovery Rate	87,42%
+Legal and regulatory framework analysis	+4 Notches	Expected Loss	4,78%
+Liquidity and refinancing risk	+1 Notch	Rating Case Breakeven OC	2,15%
= Rating after 1st uplift	AA	<i>Program Key Counterparties</i>	
Cover Pool & cash flow analysis	AAA	Servicer	NA
+ 2nd rating uplift	+2 Notches	Account Bank	NA
Rating covered bond program / Outlook	<b>AAA / Stable</b>	Sponsor	NA

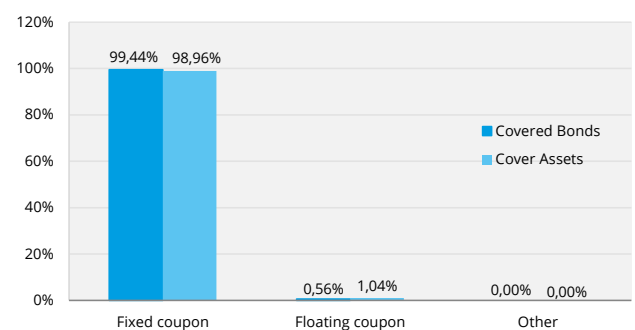
## Cover Assets Composition

General Information		Property Type	
Cover Pool Balance	EUR 29.044,30 m.	Residential	EUR 27.726,24 m.
Average Seasoning	55,92 Months	Commercial	EUR 722,56 m.
Total number of exposures	232.874	Other	EUR 0,00 m.
Distribution by type of asset		Distribution by Loan size	
Mortgages	EUR 28.448,80 m.	Number of Commercial Loans	427
Public Sector	EUR 0,00 m.	Number of Residential Loans	232.447
Shipping	EUR 0,00 m.	Average Size Commercial Loans (000s)	1.692
Substitute Assets	EUR 595,50 m.	Average Size Residential Loans (000s)	119
Other (Derivates)	EUR 0,00 m.		

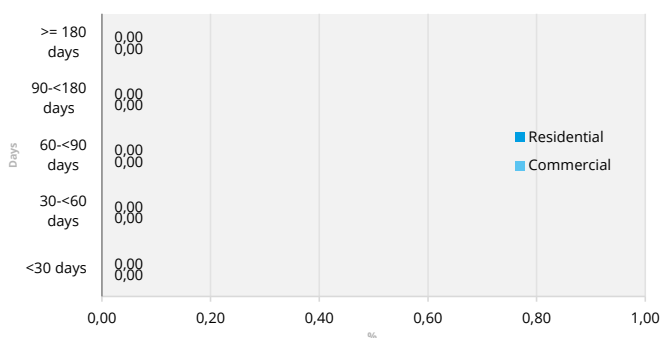
Asset-liability Profile



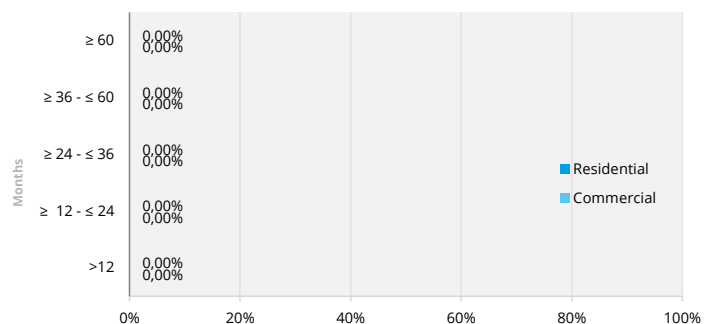
Interest Rate



Arrears Distribution



Seasoning Distribution



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Unindexed LTV Distribution Commercial Loans			Unindexed LTV Distribution Residential Loans		
LTV	Nominal	% Loans	LTV	Nominal	% Loans
>0 - <=40 %	NA	NA	>0 - <=40 %	4.381,52	15,40%
>40 - <=50 %	NA	NA	>40 - <=50 %	3.371,55	11,85%
>50 - <=60 %	NA	NA	>50 - <=60 %	20.695,73	72,75%
>60 - <=70 %	NA	NA	>60 - <=70 %	0,00	0,00%
>70 - <=80 %	NA	NA	>70 - <=80 %	0,00	0,00%
>80 - <=90 %	NA	NA	>80 - <=90 %	0,00	0,00%
>90 - <=100 %	NA	NA	>90 - <=100 %	0,00	0,00%
>100%	NA	NA	>100%	0,00	0,00%

Currency Distribution			Loan Distribution by Regions (as % of total Mortgages)		
Currency	Covered Bonds	Cover Assets	Region	% Residential Loans	% Commercial Loans
EUR	17.780,43 m.	29.044,30 m.	NA	NA	NA
AUD	0,00 m.	0,00 m.	NA	NA	NA
BRL	0,00 m.	0,00 m.	NA	NA	NA
CAD	0,00 m.	0,00 m.	NA	NA	NA
CHF	0,00 m.	0,00 m.	NA	NA	NA
CZK	0,00 m.	0,00 m.	NA	NA	NA
DKK	0,00 m.	0,00 m.	NA	NA	NA
GBP	0,00 m.	0,00 m.	NA	NA	NA
HKD	0,00 m.	0,00 m.	NA	NA	NA
JPY	0,00 m.	0,00 m.			
KRW	0,00 m.	0,00 m.			
NOK	0,00 m.	0,00 m.			
PLN	0,00 m.	0,00 m.			
SEK	0,00 m.	0,00 m.			
SGD	0,00 m.	0,00 m.			
USD	0,00 m.	0,00 m.			
Other	0,00 m.	0,00 m.			

## Swap Counterparties

Name	Type of arrangement	LEI
NA	NA	NA

## Swap Agreements

Interest Rate Swap	NA
Currency Swap	NA

#### ISIN Lists

Issuer	ISIN	Coupon Type	Coupon Rate (%)	Issue date	Maturity date
Commerzbank AG	DE000CZ40KLO	Fix	0,25	02.03.2015	02.03.2021
Commerzbank AG	DE000CZ40MH4	Fix	0,27	11.12.2017	11.06.2024
Commerzbank AG	DE000EH1ACA0	Fix	4,13	07.04.2011	07.04.2021
Commerzbank AG	DE000CZ40NN0	Fix	0,13	09.01.2019	09.01.2024
Commerzbank AG	DE000CZ40LG8	Fix	0,50	09.06.2016	09.06.2026
Commerzbank AG	DE000CZ40MQ5	Fix	0,88	16.04.2018	18.04.2028
Commerzbank AG	DE000CZ40NY7	Fix	0,23	06.05.2019	06.05.2026
Commerzbank AG	DE000CZ40LS3	Fix	0,13	23.11.2016	23.02.2023
Commerzbank AG	DE000EH1ABB0	Fix	3,25	29.07.2010	29.07.2020
Commerzbank AG	DE000CZ40MW3	Fix	0,25	13.06.2018	13.09.2023
Commerzbank AG	DE000CZ40KG0	Fix	0,25	26.01.2015	26.01.2022
Commerzbank AG	DE000CZ40KX5	Fix	0,25	23.07.2015	23.07.2020
Commerzbank AG	DE000CZ40MJ0	Fix	0,13	11.12.2017	12.06.2023
Commerzbank AG	DE000CZ40NP5	Fix	1,25	09.01.2019	09.01.2034
Commerzbank AG	DE000CZ40LM6	Fix	0,05	11.07.2016	11.07.2024
Commerzbank AG	DE000CZ40MU7	Fix	0,63	28.05.2018	28.05.2025
Commerzbank AG	DE000CZ45VF8	Fix	0,05	09.12.2019	09.05.2029
Commerzbank AG	DE000CZ40J26	Fix	2,00	26.11.2013	27.11.2023
Commerzbank AG	DE000CZ40MB7	Fix	0,63	24.08.2017	24.08.2027
Commerzbank AG	DE000EH1ABH7	Fix	2,88	05.10.2010	05.10.2020
Commerzbank AG	DE000CZ40NB5	Fix	0,05	28.09.2018	01.08.2022
Commerzbank AG	DE000CZ40KK2	Fix	0,30	06.02.2015	07.02.2022
Commerzbank AG	DE000CZ40KZ0	Fix	0,88	07.09.2015	08.09.2025
Commerzbank AG	DE000EH1A3P2	Floating	EIEUR3M + 0.8	03.06.2009	03.06.2024
Commerzbank AG	DE000CZ40MN2	Fix	0,63	13.03.2018	13.03.2025
Commerzbank AG	DE000CZ40NU5	Fix	0,24	10.04.2019	10.04.2026
Commerzbank AG	DE000CZ40LQ7	Fix	0,13	30.08.2016	15.12.2026
Commerzbank AG	DE000CZ40MV5	Fix	0,88	06.06.2018	06.06.2028
Commerzbank AG	DE000CZ40JW9	Fix	1,63	17.10.2013	19.10.2020

#### Data Definitions

The data is presented with a cut-off date. Following the clarification regarding the source of information:  
 Issuer: Issuer source of information are all available public information, i.e. Investor Reports, Harmonised Transparency Templates "HTT", National Transparency Templates "NTT", Prospectus etc. Not reported or non available information will be labeled as "NA".

Field Name	Source	Definition
Cover pool asset class	Issuer	The asset type in the cover pool (public sector assets or mortgage assets)
Legal framework	CRA	The set of legislative and regulatory rules of the respective jurisdiction that regulates the covered bonds (CB) program
Nominal value	Issuer	The total amount of outstanding covered bonds as of cut-off date expressed in millions
Cover pool value	Issuer	Aggregate value of all assets in the cover pool as of cut-off date expressed in millions
WAL maturity covered bonds	Issuer	The weighted average remaining maturity of all outstanding covered bonds in years
WAL maturity cover pool	Issuer	The weighted average remaining maturity of all outstanding covered assets in years
Repayment method	Issuer	Hard Bullet: Covered bonds are repaid on the maturity date which cannot be extended Soft Bullet: The maturity date of the covered bonds can be extended by a fixed period Conditional pass-through (CPT): Covered bonds with a scheduled maturity date, and an extension mechanism defined by certain conditions
Overcollateralization	Issuer	Current OC: The proportion of cover assets that exceeds the proportion of currently outstanding covered bonds, calculated as $(\text{Cover pool value} / \text{outstanding covered bonds} - 1) * 100$ Min OC: The OC level that the issuer must maintain according to the respective CB legislation Committed OC: The minimum OC level that the issuer has committed to maintain
Covered bonds coupon type	Issuer	Type of interest rate paid on covered bonds, expressed as a percentage of bond's face value
LT Issuer Rating	CRA	Long-term ratings assess the default risks for each category of a bank's financial instruments with a residual term-to-maturity of more than one year
ST Issuer Rating	CRA	Short-term ratings assess the default risks for each category of a bank's financial instruments with a residual term-to-maturity of less than one year
Legal and regulatory framework analysis	CRA	A qualitative assessment of legislative and regulatory rules of the covered bonds program
Liquidity and refinancing risk	CRA	A qualitative assessment of regulatory requirements for liquidity and refinancing risk of the covered bonds program
First rating uplift	CRA	The rating after adding up the notches from Legal and regulatory framework analysis and Liquidity and refinancing risk with LT Issuer rating
Cover pool and cash flow analysis	CRA	The quantitative assessment of the cover assets and covered bonds at different rating-level stressed scenarios
Second rating uplift	CRA	The rating after adding up the notches from cash-flow analysis with 1st rating uplift (only effective if the rating from cash-flow analysis is higher than the 1st rating uplift)
Metrics date	CRA	The date on which CRA assigned the initial / follow-up rating of the covered bond program
Rating Case Default Rate (RDR)	CRA	Stressed default rate of the cover assets represented by the base case stressed scenario
Rating Case Recovery Rate (RRR)	CRA	Stressed recovery rate of the defaulted assets represented by the base case stressed scenario
Expected Loss	CRA	Stressed loss rate of the cover assets represented by the base case stressed scenario. The expected loss rate has been calculated as $[\text{RDR} * (1 - \text{RRR})]$ [%]
Rating Case Breakeven OC	CRA	The required stressed OC level compatible with the base case rating
Average Seasoning	Issuer	Average length of the loans from the origination date to the cut-off date in months
Loan Size	Issuer	Average size of the loans (i.e. Total value of cover assets / Number of loans)
LTV	Issuer	The loan-to-value (LTV) is the ratio of a loan to the value of the property securing the loan
LEI	CRA	Legal Entity Identifier (LEI) enables unique identification of legal entities in financial transactions
Arrears Distribution	Issuer	The distribution of arrears of the cover assets with respect to each asset class
Seasoning Distribution	Issuer	The distribution of seasoning of the cover assets with respect to each asset class
Asset liability Profile	CRA	The maturity structure of the cover assets and liabilities
% Residential Loans	Issuer	Outstanding value of loans that are secured by the residential property expressed as % of total outstanding loans in the cover pool
% Commercial Loans	Issuer	Outstanding value of loans that are secured by the commercial property expressed as % of total outstanding loans in the cover pool
Fixed Coupon	Issuer	All assets and liabilities in the covered bond program that yield a fixed interest rate
Floating Coupon	Issuer	All assets and liabilities in the covered bond program that have variable interest rates
EIEURxM	Reuters	Euro x Month EURIBOR
EURSWExY	Reuters	Euro x Year Interest Rate Swap Fixing

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