

Creditreform Covered Bond Rating

Commerzbank AG

Public Sector Covered Bond Program



Rating Object

| | | | |
|--|-----------------------|---------------------------|-------------------|
| Country Issuer | Germany | Repayment method | Hard Bullet |
| Cover pool asset class | Public Sector | | Min (2,00%) |
| Legal framework | German Pfandbrief Act | Overcollateralization | Current (34,76%) |
| Nominal value | EUR 8.157,20 m. | | Committed (NA) |
| Cover pool value | EUR 10.992,40 m. | | Fix (80,20%) |
| WAL maturity covered bonds | 6,70 (Years) | Covered bonds coupon type | Floating (19,80%) |
| WAL maturity cover pool | 12,20 (Years) | | Other (0,00%) |
| Cut-off date Covered Pool Information: | | 30.06.2019 | |

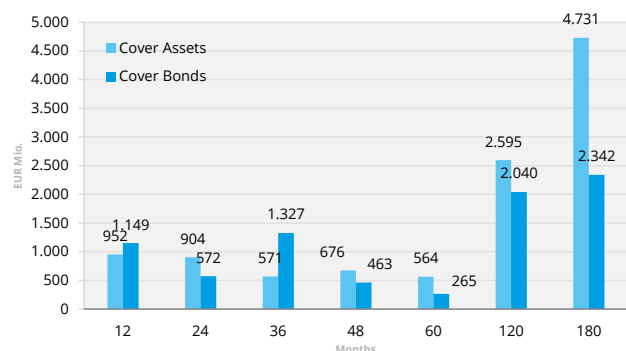
Rating Overview

| Rating Summary | | Credit Risk Metrics | |
|--|--------------------|-----------------------------------|------------|
| Issuer | Commerzbank AG | Metrics date | 10.12.2018 |
| LT Issuer Rating | BBB+ | Rating Case Default Rate | 13,30% |
| ST Issuer Rating | L2 | Rating Case Recovery Rate | 46,31% |
| +Legal and regulatory framework analysis | +4 Notches | Expected Loss | 7,14% |
| +Liquidity and refinancing risk | +1 Notch | Rating Case Breakeven OC | 7,00% |
| = Rating after 1st uplift | AA | <i>Program Key Counterparties</i> | |
| Cover Pool & cash flow analysis | BB+ | Servicer | NA |
| + 2nd rating uplift | +/- 0 | Account Bank | NA |
| Rating covered bond program / Outlook | AA / Stable | Sponsor | NA |

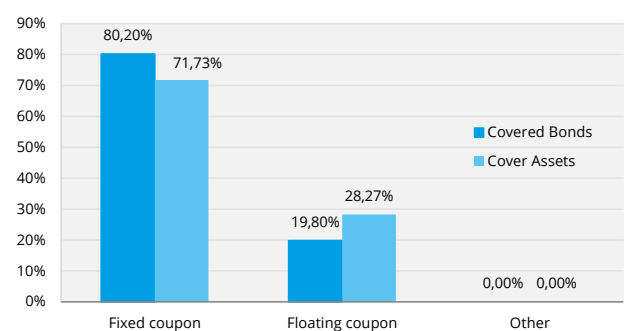
Cover Assets Composition

| General Information | | Breakdown by type of Assets | |
|-------------------------------|------------------|---------------------------------------|-----------------|
| Cover Pool Balance | EUR 10.992,40 m. | Loans | EUR 8.571,00 m. |
| Average Seasoning | NA | Bonds | EUR 2.278,90 m. |
| Total number of exposures | 475 | Other | EUR 0,00 m. |
| Distribution by type of asset | | Distribution by Debtor size | |
| Mortgages | EUR 0,00 m. | Average Size Loans (EUR k.) | 22.842 |
| Public Sector | EUR 10.849,90 m. | Sovereigns (EUR m.) | 2.609 |
| Shipping | EUR 0,00 m. | Regional/federal authorities (EUR m.) | 4.871 |
| Substitute Assets | EUR 142,40 m. | Local/municipal authorities (EUR m.) | 2.163 |
| Other (Derivates) | EUR 0,00 m. | Others (EUR m.) | 1.206 |

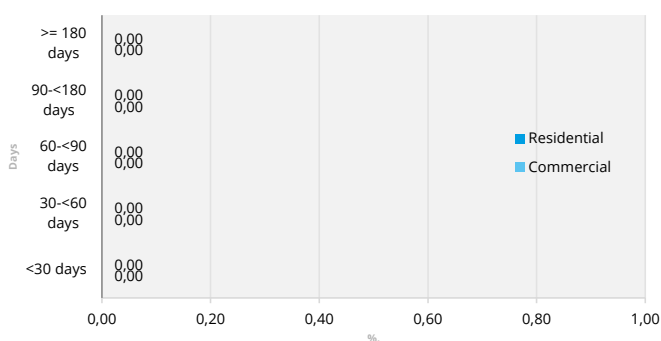
Asset-liability Profile



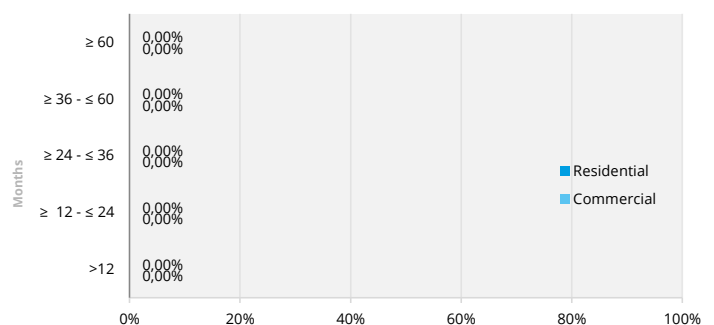
Interest Rate



Arrears Distribution



Seasoning Distribution



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Creditreform
Rating

| LTV Distribution Commercial Loans | | | LTV Distribution Residential Loans | | |
|-----------------------------------|---------|---------|------------------------------------|---------|---------|
| LTV | Nominal | % Loans | LTV | Nominal | % Loans |
| >0 - <=40 % | NA | NA | >0 - <=40 % | NA | NA |
| >40 - <=50 % | NA | NA | >40 - <=50 % | NA | NA |
| >50 - <=60 % | NA | NA | >50 - <=60 % | NA | NA |
| >60 - <=70 % | NA | NA | >60 - <=70 % | NA | NA |
| >70 - <=80 % | NA | NA | >70 - <=80 % | NA | NA |
| >80 - <=90 % | NA | NA | >80 - <=90 % | NA | NA |
| >90 - <=100 % | NA | NA | >90 - <=100 % | NA | NA |
| >100% | NA | NA | >100% | NA | NA |

| Currency Distribution | | | Loan Distribution by Regions (as % of total Public Sector assets) | | |
|-----------------------|---------------|--------------|---|---------------------------|--|
| Currency | Covered Bonds | Cover Assets | Region | % of Public Sector assets | |
| EUR | 7.906,80 m. | 7.759,80 m. | NA | NA | |
| AUD | 0,00 m. | 0,00 m. | NA | NA | |
| BRL | 0,00 m. | 0,00 m. | NA | NA | |
| CAD | 0,00 m. | 0,00 m. | NA | NA | |
| CHF | 250,30 m. | 786,10 m. | NA | NA | |
| CZK | 0,00 m. | 0,00 m. | NA | NA | |
| DKK | 0,00 m. | 0,00 m. | NA | NA | |
| GBP | 0,00 m. | 1.850,50 m. | NA | NA | |
| HKD | 0,00 m. | 0,00 m. | NA | NA | |
| JPY | 0,00 m. | 0,00 m. | NA | NA | |
| KRW | 0,00 m. | 0,00 m. | NA | NA | |
| NOK | 0,00 m. | 0,00 m. | NA | NA | |
| PLN | 0,00 m. | 0,00 m. | NA | NA | |
| SEK | 0,00 m. | 0,00 m. | NA | NA | |
| SGD | 0,00 m. | 0,00 m. | NA | NA | |
| USD | 0,00 m. | 595,90 m. | NA | NA | |
| Other | 0,00 m. | 0,00 m. | | | |

| Swap Counterparties | | |
|---------------------|---------------------|-----|
| Name | Type of arrangement | LEI |
| NA | NA | NA |
| NA | NA | NA |
| NA | NA | NA |
| NA | NA | NA |
| 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 | DE000EH1AAK3 | Fix | 3,22 | 02.03.2010 | 02.03.2020 |
| Commerzbank AG | DE000HBE1M04 | Fix | 4,00 | 07.12.2006 | 07.12.2021 |
| Commerzbank AG | DE000EH1ABD6 | Fix | 2,69 | 09.09.2010 | 09.09.2019 |
| Commerzbank AG | DE000EH0EC79 | Floating | 0.8685 * EURSWE15Y | 22.02.2006 | 22.02.2021 |
| Commerzbank AG | DE000EH1ABY2 | Fix | 3,45 | 28.01.2011 | 28.10.2019 |
| Commerzbank AG | DE000EH1A4M7 | Fix | 3,75 | 23.09.2009 | 23.09.2019 |
| Commerzbank AG | DE000EH1AAP2 | Fix | 3,40 | 16.03.2010 | 16.03.2020 |
| Commerzbank AG | XS0244555131 | Fix | 3,82 | 16.02.2006 | 16.02.2021 |
| Commerzbank AG | DE000HBE1MF6 | Floating | 0,00 | 13.11.2006 | 13.11.2036 |
| Commerzbank AG | DE000CZ40NV3 | Floating | EIEUR3M + 0.4 | 15.04.2019 | 19.04.2022 |
| Commerzbank AG | DE000EH1AA82 | Fix | 3,13 | 16.07.2010 | 16.07.2020 |
| Commerzbank AG | DE000A0BNEJ2 | Floating | 0,00 | 20.08.2004 | 20.08.2019 |
| Commerzbank AG | DE000EH0EC46 | Floating | 0.87 * EURSWE15Y | 16.02.2006 | 16.02.2021 |

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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