Creditreform Covered Bond Rating
Commerzbank AG
Mortgage Covered Bond Program

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Rating Object	Rating Information	
Commerzbank AG, **Mortgage Covered Bond Program**	Rating / Outlook : **AAA / Stable**	Type: Initial Rating (unsolicited)
Type of Issuance : Mortgage Covered Bond under German law Issuer : Commerzbank AG	Rating Date : 27.12.2018 Monitoring until : Withdrawal of the rating	
LT Issuer Rating: BBB+ (Commerzbank) ST Issuer Rating: L2 Outlook Issuer: Stable	Rating Methodology : CRA „Covered Bond Ratings"	

Program Overview

Nominal value	EUR 20.148 m.	WAL maturity covered bonds	4,70 (Years)
Cover pool value	EUR 24.902 m.	WAL maturity cover pool	5,90 (Years)
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	23,59%/ 2,00%
Repayment method	Hard Bullet	Min. overcollateralization	2%
Legal framework	German Pfandbriefe Act	Covered bonds coupon type	Fix (90,07%), Floating (9,93%)

Cut-off date Cover Pool information: 30.09.2018.

Content

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Summary

This rating report covers our analysis of the mortgages covered bond program issued under German law by Commerzbank AG („Commerzbank "). The total covered bond issuance at the cut-off date (30.09.2018) had a nominal value of EUR 20.148,20 m, backed by a cover pool with a current value of EUR 24.901,90 m. This corresponds to a nominal overcollateralization of 23,59%. The cover assets mainly include German mortgages obligations in Germany.

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") has assigned the covered bond program a AAA rating. The AAA rating represents the highest level of credit quality and the lowest investment risk.

Key Rating Findings

+ Covered Bonds are subject to strict legal requirements (PfandBG)
+ Covered bond holders have recourse to the issuer
- Earnings contraction of the issuer compared to previous years

Table1: Overview results

Risk Factor	Result
Issuer rating	BBB+ (rating as of 25.09.2018)
+ Legal and regulatory framework	+4 Notches
+ Liquidity and refinancing risk	+1 Notch
= Rating after 1st uplift	AA
Cover pool & cash flow analysis	AAA
+ 2nd rating uplift	+2
= Rating covered bond program	**AAA**

Issuer Risk

Issuer

The Commerzbank AG (hereinafter: Commerzbank) was founded on February 26, 1870. Serving around 16 million private and 1 million business and corporate customers, Commerzbank is one of the leading commercial banks in Germany. It operates in more than 50 countries and is the market leader in foreign trade and SME financing. In addition to the direct bank, subsidiary Comdirect Commerzbank is also active in the digitalization of its banking business and the acquisition of fintech companies. At the same time, it has one of the densest branch networks in the German private banking sector.

On January 12, 2009, Commerzbank took over Dresdner Bank in full. In the course of the financial crisis, Commerzbank had to take SoFFin funds and was partially nationalized due to the aforementioned acquisition. As part of a capital increase, the "Financial Market Stabilization" Special Fund has taken over 25% of the shares plus one share from the bank. In the meantime, the shareholding of the Federal Republic of Germany has been reduced to 15%.

The earnings situation of Commerzbank in 2017 was weaker compared to the previous year. Only the sharp decline in depreciation and the extraordinary income generated a positive annual result. By contrast, in 2017 Commerzbank had already fully borne the restructuring expenses of EUR 808 m. Based on the H1 / 2018 figures, the earnings situation improved due to the further implementation of Commerzbank Strategy 4.0. Nonetheless, the comparison with other major European banks shows that Commerzbank remains below average profitable. However, Commerzbank has a good asset quality. Both non-performing loans and risk-weighted assets fell sharply within one year. The regulatory capital ratios greatly improved and are now in the peer group average. In terms of capital quality, Commerzbank was able to take a step forward in 2017. The liquidity situation of Commerzbank has also improved compared to the previous year and remains satisfactory.

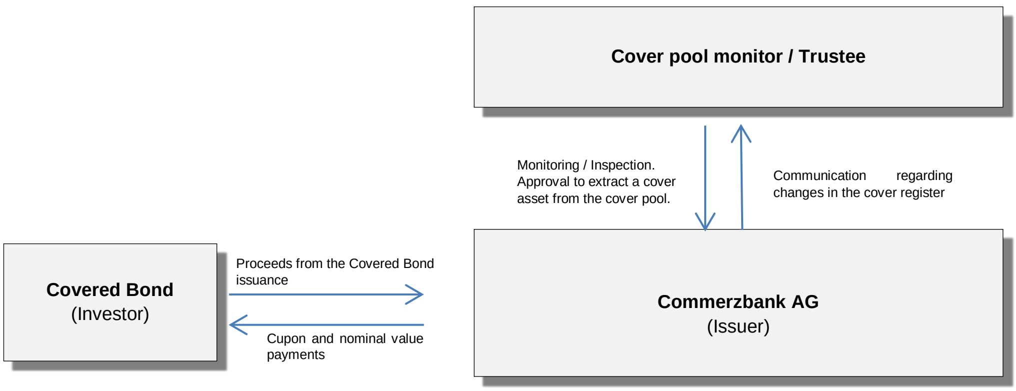
Structural Risk

Transaction structure

Table 2: Overview of all transaction’s parties | Source: CRA

Role	Name
Issuer	Commerzbank AG, Frankfurt am Main
Cover pool monitor / Trustee	Appointed by BaFin as stipulated in Pfandbriefgesetz, "PfandBG"
Cover pool administrator	Appointed by BaFin in case of issuer insolvency

Figure1: Overview of Covered Bond emission | Source: CRA



Legal and Regulatory Framework

The legal basis of covered bond („Pfandbriefe") programs in Germany is the German Covered Bond Act (Pfandbriefgesetz, "PfandBG"). According to PfandBG, the public supervision of German covered bond banks is exercised by the Federal Financial Supervisory Authority (BaFin), which also grants licenses to operate the covered bond business. The supervisory duties include, for example, the verification of compliance with the statutory coverage and overcollateralization, the assessment and monitoring of market-, liquidity- and operational risks, as well as the performance of coverage tests based on appropriate samples. If necessary, BaFin can request additional information and information at any time.

In May 2014, Germany implemented the European Union's Bank Recovery and Resolution Directive ("BRRD") in national law, providing the resolution authorities with special resolution tools including the so-called "bail-in tool". Among others, this law ensures that covered bonds are exempted from a potential bail-in.

Listed issues according to the German PfandBG fulfil the criteria according to UCITS 52 (4) as well as the requirements according to Annex VI, part 1, section 58 (a) to (f) of the European Capital Requirements Directive (CRD) and are eligible for repo transactions.

Insolvency Remoteness and Asset Segregation

While cover assets remain on the consolidated balance sheet as long as the bank is solvent ("in-balance" transaction), PfandBG stipulates that the issuer create a cover register per asset class in order to identify the cover assets. Covered bonds must be fully backed by the appropriate cover asset class. In addition, PfandBG complies with the principle of uniform coverage, i.e each covered bond program includes only one cover pool which contains all the claims of this cover class. The legal framework prohibits the mixing of the primary cover asset classes.

In the event of a default by the issuer, the registered cover assets will be marked as a non-insolvent part of the issuer´s estate and will be isolated from the insolvency estate; they form the insolvency-free assets of the issuer and are not affected by insolvency proceedings. If the cover pool is insufficient to fully service the claims of the covered bond creditors, the covered bond holders have recourse to the bank's aggregate bankruptcy estate in a *pari passu* relationship with other unsecured bond creditors.

In addition, there is no automatic sale of the cover assets or accelerated repayment of the covered bonds in the event of a default. Only in the case of insolvency or over-indebtedness of the cover pool can BaFin apply for a separate insolvency procedure to liquidate the assets of the covered bond issuer, thereby accelerating the repayment of the covered bonds.

Trustee

In order to ensure that the cover assets are correctly recorded in the relevant cover register and that their inclusion meets eligibility criteria, the issuer is obliged by the regulatory authority BaFin to appoint a trustee (including a representative). The issuer must communicate to the trustee any changes to the cover register in order to ensure the monitoring process. The responsibilities of the trustee include i.e. the review of the cover register and the statutory coverage ratios of the cover pool, the assurance of a proper determination of the mortgage lending values, and the approval of deletion of cover assets from the cover register.

Special Administrator

In the event of insolvency of the issuer, a special administrator („Sachwalter") will be appointed to manage the cover pool. The special administrator may perform all legal transactions with effect to the cover pool, insofar as these are necessary for an orderly settlement in the interest and to the full satisfaction of the covered bond creditors. In the absence of liquidity, the custodian may engage in liquidity transactions or sell assets from the cover pool (see "Liquidity and refinancing risk"). The special administrator is also entitled to transfer all or part of the cover assets and liabilities of the program to another covered bond bank or to appoint a fiduciary administrator. Both decisions require the written approval of BaFin.

Eligibility Criteria

Eligible cover assets are loans backed by mortgages, public sector assets, and smaller asset classes such as registered ship mortgages or registered liens on registered aircrafts. Each asset class corresponds to an individual class of covered bonds: mortgage covered bonds ("Hypothekenpfandbriefe"), public sector coverd bonds ("Öffentliche Pfandbriefe"), ship covered bonds ("Schiffspfandbriefe") and aircraft covered bonds ("Flugzeugpfandbriefe"), respectively. The legal framework prohibits a commingling of primary asset classes. Consequently, a covered bond must be completely secured by its cover asset class. Furthermore, PfandBG conforms to the convention of unitary cover, i.e. to each covered bond type belongs one single cover pool, which contains all debts incurred from issuing covered bonds of that type. Thus, the issuer bank cannot decree to introduce a supplementary cover pool covering a new series of covered bonds of that type.

Exposures to the European Central Bank, central banks in the European Union or to appropriate credit institutions, which qualify for the CQS 1 with respect to the Directive 2006/48/EC, present eligible cover assets as well, but must not exceed 10% of the nominal value of covered bonds outstanding. Asset backed securities and mortgage backed securities are not allowed to be part of the cover pool.

The geographical scope of legitimate mortgage assets is confined to EU/EEA countries, to Switzerland, USA, Canada, Japan, Australia, New-Zealand and Singapore. Ship and aircraft mortgages can be warranted worldwide, given that there is a public register and the guarantee of a security comparable to German ship and aircraft mortgages. The total amount of loans provided in non-EU countries, where it is not ensured that the right of preferential treatment of covered bond holders extends to the cover assets, is limited to 10% of the total volume of the cover loans and 20% for ship and aircraft mortgages. Due to the fact that the legal framework does not restrict the geographical scope to the EU/EEA countries and permits extension to other countries, Germany is considered partially aligned with EBA's best practice.

Permitted substitute assets are limited to 10% of the total amount of public sector covered bonds outstanding.

Systemic Relevance and External Support

While the total volume of outstanding covered bonds was more than EUR 889 billion in 2007[1], it fell by more than half to EUR 366 billion in 2017. The main determinant of this decline is the public sector covered bonds, which shrinked from around EUR 678 billion to EUR 148 billion in this period. This behaviour in public-sector covered bonds obeys in particular, to a decrease in new issuances, which have fallen by approx. 90% in the last ten years, the value accounting for approximately 40% of the total covered bond market.

With total assets of EUR 452,5 billion, Commerzbank was one of the largest banks in Germany in terms of total assets in 2017. It is also ranked as one of the largest mortgage covered bonds issuer on the German market with an outstanding volume of EUR. 20.15 billion as of 30.09.2018.

Summary Structural Risk

In general, the PfandBG defines the legal basis for covered bond programs in Germany, it 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.

[1] Source: EMF-ECBC (2018), ECBC: European Covered Bond Fact Book 2018, EMF-ECBC

Due to the extended geographical scope of eligible assets other than EU/EEA countries, Germany is considered partially aligned with EBA's best practices. However, we considered the structural framework in Germany as positive, accomplishing an adequate set of rules for German covered bonds. Furthermore, we contemplate the importance of Commerzbank in the German Pfandbrief market in our analysis. Due to those reasons we have set a rating uplift of four (+4) notches.

Liquidity and Refinancing Risk

Minimum Overcollateralization

According to PfandBG, it is compulsory to maintain an overcollateralization (OC) of at least 2% measured on a daily net present value and on a weekly stressed net present value. This mandatory overcollateralization has to be covered under interest rate and currency stress scenarios. Overall, Germany is considered to be fully aligned with EBA Best Practices regarding coverage principles and regulatory overcollateralization.

Short-term Liquidity Coverage

The Issuer is required to maintain a liquidity buffer for the next 180 days to cover all debt service outflows (interest and principal) and derivative transactions. The calculation of the buffer size takes into account the cash inflows from maturing receivables of the cover pool. The buffer amount must be kept in liquid assets and is measured on a daily basis.

A further measure to decrease liquidity risk in the German PfandBG is the provision that after the insolvency of the issuer a covered bond bank has its own bank status and can therefore obtain liquidity from the central bank (Bundesbank) against pledging of its cover assets (repo ability).

Stress Tests and Matching

The issuer must ensure that the present value coverage and OC is also maintained in the case of changes in interest rates and exchange rates. For this purpose, the underlying cover pool must be subjected to a stress test at least weekly. If a deficit is detected on the basis of the present values determined by applying the respective stress scenario, the resulting shortfall must be added immediately to the cover pool. A decrease in the cover pool assets and corresponding OC may only be made if the result of a stress test does not show a shortfall.

Asset-Liability Mismatch

Asset-liability mismatches ("ALM") arise with different maturities of cover assets and covered bonds. According to PfanBG, 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.

Repayment Method

This covered bond program issues covered bonds with hard bullet maturity, i.e. a final repayment without extension optionality at the end of the term. Maturity mismatches between cover assets and liabilities thus cannot be mitigated by extension of the legal final maturity. This feature of German covered bond programs is considered both qualitatively and within our cash flow analysis.

Refinancing Costs

In the event of the issuer's insolvency, the PfandBG 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.

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 is adjusted following an analysis of relevant market data and will be used in our cash flow analysis.

Other liquidity risks

Derivatives can be an additional measure to hedge interest rate and currency risks. The legal framework provides for weekly stress tests to be conducted on interest rate- and foreign exchange risks. The stress scenarios are either static, dynamic or model-based.

Information on the maturity of outstanding bonds, notional and NPV coverage, the structure of the cover assets, positions in derivatives and the fixed interest periods, the stress tests and the respective coverage shall be published in each quarter.

Summary Liquidity and Refinancing Risk

Compared to other jurisdictions, the German PfandBG 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 due to the hard bullet repayment structure, which can only be cushioned by sufficiently high overcollateralization, 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 German Covered Bond programs as positive and set a rating uplift of one (+1) notch.

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 30.09.2018, the pool of cover assets consisted of 208.437,00 debt receivables from 173.103,00 debtors, of which 100,00% are domiciled in Germany. The total cover pool volume amounted to EUR 24.901,90 m in residential (97,56%), commercial (2,44%) and others (0,00%). The ten largest debtors of the portfolio total to 1,40%. Table 3 displays additional characteristics of the cover pool:

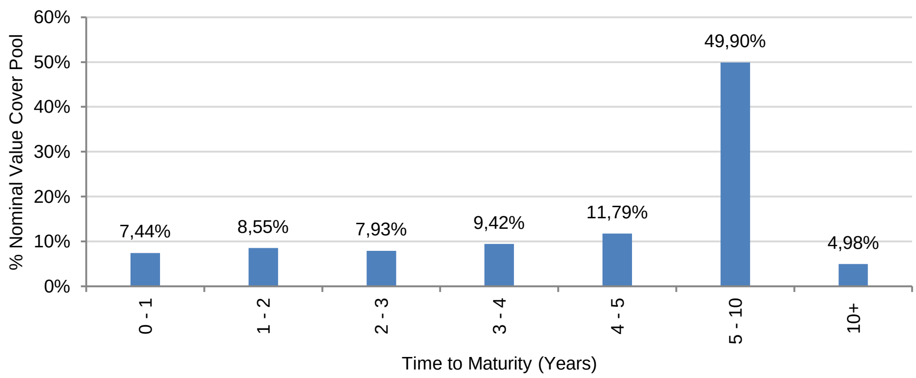
Table 3: Cover pool characteristics | Source: Commerzbank

Characteristics	Value
Cover assets	EUR 24.902 m.
Covered bonds outstanding	EUR 20.148 m.
Substitute assets	EUR 640,50 m.
Cover pool composition	
Mortgages	97,43%
Substitute assets	2,57%
Other / Derivative	0,00%
Number of debtors	173.103
Mortgages Composition	
Residential	97,56%
Commercial	2,44%
Other	0,00%

Average asset value (Residential)	EUR 113,85 k.
Average asset value (Commercial)	EUR 1.118,34 k.
Non-performing loans	0,0%
10 biggest debtors	1,40%
WA seasoning	56,4 Months
WA maturity cover pool (WAL)	5,90 Years
WA maturity covered bonds (WAL)	4,70 Years

We have listed an extended view of the composition of the cover pool in the appendix section "Cover pool details", with, for example, a detailed regional distribution. The following chart displays the maturity profile of the cover assets at the cut-off date 30.09.2018 (see figure 2):

Figure 2: Distribution by remaining time to maturity I Source: Commerzbank



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: Commerzbank

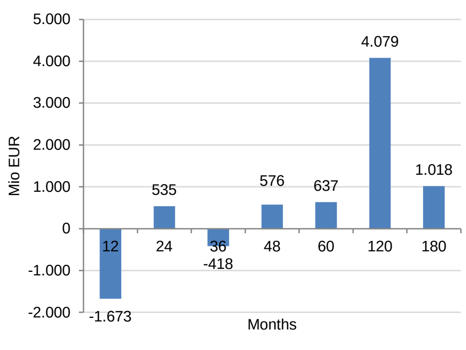
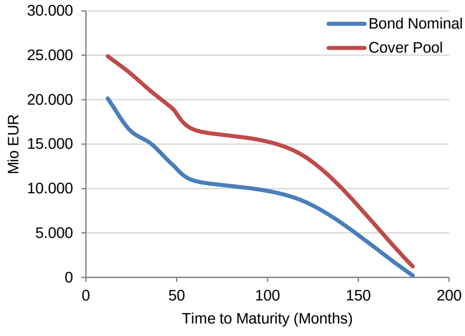


Figure 4: Amortization profile | Source: Commerzbank



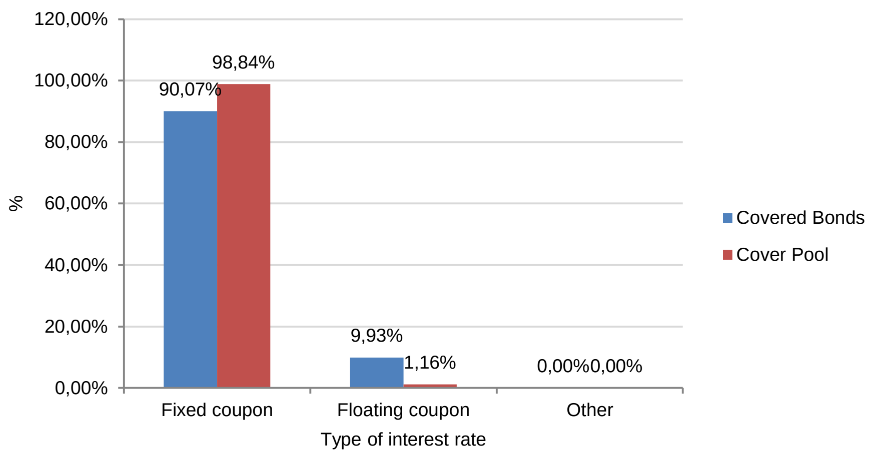
During its cash flow modelling, CRA has taken into consideration the maturity structure of cover assets and liabilities. This structure was an integral part of the cash flow analysis.

Interest rate and currency risk

This covered bond program does not use derivatives to hedge interest rate- and currency risk. However, the legal framework provides for weekly stress tests to be conducted on interest rate- and currency risks to maintain the mandatory OC. Therefore, interest rate risk could be mitigated by the 2% OC requirement. Currency risk, on the other hand, is also limited for this program as 100,00% of the cover pool assets and 100,00% of the cover bonds are denominated in euro. Nevertheless, we have applied interest rate and foreign exchange stresses on the cash flows for each rating level according to our methodology. The overall rating impact of interest rate and currency mismatches was negligible for this program, which has been presented in our ‘Breakeven Analysis’ segment.

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

Figure 5: Type of interest rate | Source: Commerzbank



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 historical issuer’s NPL ratio to derivate a conservative default rate proxy for the approximation through the LHP distribution. . For the Commerzbank it has been assumed an expected default rate of 1,799% 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 (%)
AAA	**46,09%**	**90,64%**	**4,31%**
AA+	42,97%	92,11%	3,39%
AA	37,99%	94,60%	2,05%
AA-	33,71%	96,81%	1,08%
A+	31,98%	97,87%	0,68%
A	31,94%	97,90%	0,67%
A-	30,78%	98,59%	0,43%

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.

Asset-Sale Discount

In our model, short-term liquidity needs and liquidity needs due to asset-liability mismatches will be met with a sale of cover assets available for monetization. Based on secondary market data, CRA assumes a rating-level haircut on the asset value („Asset-Sale Discount“) which represents additional costs of disposal and market risks during the sale of cover assets. (see Table 5).

Yield Spread

Since cover assets often have a positive yield spread against the covered bonds issued, CRA uses available public information (i.e. issuers´ annual accounts) to size this assumed spread („Yield Spread“) (see table 5):

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

Rating level	Asset-Sale Discount	Yield Spread
AAA	**69,06%**	**0,61%**
AA+	63,51%	0,63%
AA	59,93%	0,64%
AA-	56,52%	0,66%
A+	53,90%	0,67%
A	51,75%	0,67%
A-	48,95%	0,69%

Rating Scenarios

Scenarios that have been tested in our cash flow model rely on the variation of 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 an **AAA** rating scenario, the cash flow model showed that obligations can be paid fully and in a timely manner. In total, the cash flow analysis revealed that the portfolio, given all information available as of 30.09.2018, could be sufficient to repay bond nominal capital notwithstanding the occurrence of any extraordinary events. On this basis, the rating of the cover pool within our covered bond program rating has been set at AAA.

Overcollateralization Break-Even Analysis

CRA also performed a break-even OC analysis. Such OC levels should bear the corresponding losses for a given rating scenario. Main drivers of the analysis are:

- ALM
- Loss level

- Interest rate spreads
- Foreign currency mismatches
- 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 6Table 6.

Table 6: Breakeven Analysis | Source: CRA

Rating Level	Breakeven OC
AAA	**13,14%**
AA+	11,42%
AA	9,64%
AA-	8,22%
A+	7,43%
A	7,07%
A-	6,39%

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 (sovereigns). 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 to a BB+ rating (see Table 7):

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

Recovery / Ausfälle	Base Case	-25%	-50%
Base Case	**AAA**	AA+	A+
+25%	AAA	AA	BBB
+50%	AAA	AA-	BB+

Summary Cash-Flow Analysis

Based on public information and using the base case loss assumptions, the analysis showed that obligations can be paid in full and in a timely manner. Overall, the cash flow analysis revealed that the portfolio, given the used information, may ensure the repayment of bonds' nominal capital notwithstanding the occurrence of the presented stressed scenarios. Therefore, the rating of the cover pool within our covered bond program rating has been set at AAA. Consequently, the secondary rating uplift was set at two (+2) notches.

Counterparty Risk

Transaction parties

Table 8: Participant counterparties | Source: Commerzbank

Role	Name	Legal Entity Identifier	CRA Assessment
Issuer	Commerzbank	851WYGNLUQLFZBSYGB56	BBB+ (LT Rating)
Servicer	Not applicable for the jurisdiction	Not applicable for the jurisdiction	
Account Bank	Not applicable for the jurisdiction	Not applicable for the jurisdiction	
Sponsor	Not applicable for the jurisdiction	Not applicable for the jurisdiction	

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 re-turned and commingled with the insolvency estate of the issuer. In order to avoid such risk, the PfandBG stipulates that the cover assets should be isolated from the general bankruptcy estate (insolvency-free assets) and a special cover pool administrator (“Sachwalter”) 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 assets. These cash flows 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	Initial Rating
Result	AAA
Rating Date	27.12.2018
Publication Date	04.01.2019

Details Cover Pool

Table 9: Characteristics of Cover Pool | Source: Commerzbank

Characteristics	Value
Cover Pool Volume	EUR 24.902 m
Covered Bond Outstanding	EUR 20.148 m
Substitute Assets	EUR 641 M
Share Derivatives	0,00%
Share Othre	100,00%
Substitute Assets breakdown by asset type	
Cash	0,00%
Guaranteed by Supranational/Sovereing agency	100,00%
Central bank	0,00%
Credit institutions	0,00%
Other	0,00%
Substitute Assets breakdown by country	
Issuer country	81,97%
Eurozone	4,53%
Rest European Union	13,51%
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 Pools' Composition	
Mortgages	97,43%
Total Substitution Assets	2,57%
Other / Derivatives	0,00%
Number of Debtors	173.103
Distribution by property use	
Residential	97,56%

Commercial	2,44%
Other	0,00%
Distribution by Residential type	
Occupied (main home)	17,07%
Second home	0,00%
Non-owner occupied	0,00%
Agricultural	0,00%
Multi family	12,33%
Other	70,61%
Distribution by Commercial type	
Retail	37,56%
Office	52,35%
Hotel	-
Shopping center	-
Industry	0,03%
Land	0,00%
Other	10,06%
Average asset value (Residential)	EUR 114 k
Average asset value (Commercial)	EUR 1.118 k
Share Non-Performing Loans	0,00%
Share 10 biggest debtor	1,40%
WA Maturity (months)	70,8
WAL (months)	70,80
Distribution by Country (%)	
Germany	100,00

Figure 6: Arrears Distribution | Source:: Commerzbank

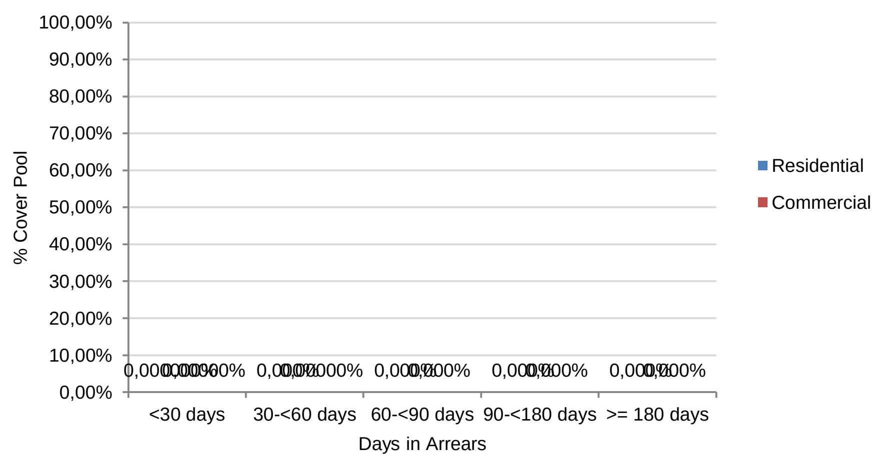
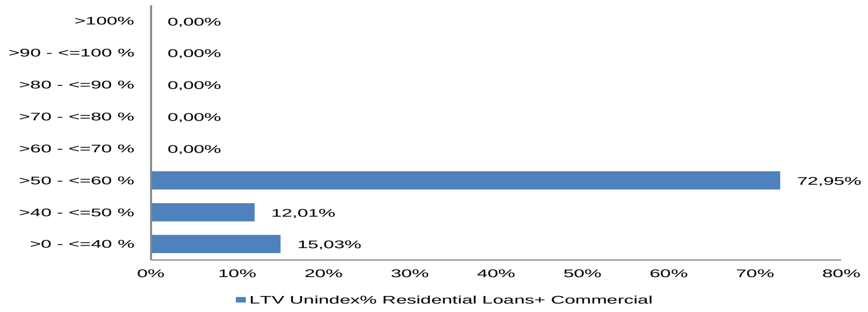


Figure 7: Unindexed LTV breakdown - pool | Source: Commerzbank



Key Source of Information

Documents (Date: 30.09.2018)

Issuer
- Audited consolidated annual reports of Commerzbank (Group) 2014-2017
- Rating file 2018
- Final Rating report as of 25.09.2018
- Half-yearly financial report of Commerzbank (Group) 2018
- Disclosure report and Remuneration report of Commerzbank (Group) 2017
- Miscellaneous Investor Relations Information and Press releases of Commerzbank (Group)
- Peergroup-Data and other data from the SNL Database

Covered Bond and Cover Pool
- HTT Reporting from Commerzbank (30.09.2018)
- Market data Public Sector 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 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 S&P Global Market Intelligence subject to a peer group analysis of 52 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 Commerzbank AG.

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

This rating was carried out by analysts Edsson Rodriguez und AFM Kamruzzaman both based in Neuss/Germany. On 27.12.2018, the rating was presented to the rating committee by the analysts and adopted in a resolution.

The rating result was communicated to Commerzbank, 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.

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