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CREDIT OPINION
14 October 2019

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Deutsche Pfandbriefbank AG - Public-Sector Covered Bonds

Update to New Issue Report, reflecting data as of June 30, 2019 – German covered bonds

Ratings

Exhibit 1

Cover Pool (€)	Ordinary Cover Pool Assets	Covered Bonds (€)	Rating
12,781,259,958	Public Sector Loans	14,597,672,513	Aa1

Source: Moody's Investors Service

Summary

The covered bonds issued by Deutsche Pfandbriefbank AG (the issuer) under the Deutsche Pfandbriefbank AG - Public Sector Covered Bonds programme are full recourse to the issuer and are secured by a cover pool of assets consisting entirely of public sector debt primarily in Germany (30.2%), Austria (27.7%) and France (21.0%).

Credit strengths include the full recourse of the public sector covered bonds (*Öffentliche Pfandbriefe* or covered bonds) to the issuer and support provided by the German legal framework for *Pfandbriefe*, which provides for the issuer's regulation and supervision.

Credit challenges include the high level of dependency on the issuer. As with most covered bonds in Europe, there are few restrictions on the future composition of the cover pool. The cover pool also has geographical and obligor concentration risks.

Our credit analysis takes into account the cover pool's credit quality, which is reflected in the collateral score of 12.7%, and the current over-collateralisation (OC) of 12.0% (on an unstressed net present value (NPV) basis) as of 30 June 2019.

Credit strengths

» ***Recourse to the issuer***: The covered bonds are full recourse to Deutsche Pfandbriefbank AG (unpublished CR assessment). (See "Covered bond description")

» ***Support provided by the German legal framework***: The covered bonds are governed by the German *Pfandbrief* Act, which provides for the issuer's regulation and supervision and sets certain minimum requirements for the covered bonds and the cover pool. (See "Moody's related publications: Covered Bond Legal Frameworks")

- ***High credit quality of the cover pool***: The covered bonds are supported by a cover pool of high-quality assets. The assets are public-sector debt, the majority of the respective obligors are located in Germany (30.2%), Austria (27.7%) and France (21.0%). The *Pfandbrief* Act sets out strict eligibility criteria for cover pool assets. Eligible assets for *Öffentliche Pfandbriefe* are (1) claims directly against sovereigns or regional or local governments, and (2) loans to (or other claims) against entities guaranteed by them. The collateral quality is reflected in the collateral score, which is currently 12.7%. (See "Cover pool analysis")
- ***Refinancing risk*: **Following what we call a covered bond (CB) anchor event, refinancing risk would be mitigated by a well-established and deep market for German *Pfandbriefe*, as well as the liquidity-matching requirements. A CB anchor event occurs when the issuer, or another entity within the issuer group that supports the issuer, ceases to service the payments on the covered bonds. (See "Covered bond analysis")
- ***Interest rate and currenc***OC requirement, which has to be maintained in stressed market conditions (that is, yield curve movements and changes in the relevant exchange rates). Currency risk is well matched in this programme. The vast majority of the assets (93.1%) and the liabilities (94.6%) are denominated in euros. There are no interest rate or currency swaps arrangement in the programme. (See "Covered bond analysis")
- ***Provisions for a cover pool administrator***: Following an issuer default, the covered bondholders would benefit from a cover pool administrator (the *Sachwalter*) that acts independently from the issuer's insolvency administrator. Furthermore, if the German banking regulator *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin) deems it necessary, the *Sachwalter*may be appointed ahead of any issuer default. (See "Covered bond analysis")

Credit challenges

- ***High level of dependency on the issuer:*** As with most covered bonds, before the insolvency of the issuer, the issuer can materially change the nature of the programme. For example, the issuer can add new assets to the cover pool, issue new covered bonds with varying promises and enter into new hedging arrangements. Also similar to most covered bonds in Europe, this programme has few restrictions on the future composition of the cover pool. These changes could affect the credit quality of the cover pool as well as the overall refinancing and market risks. Further, if the quality of the collateral deteriorates below a certain threshold, the issuer would have the ability, but not the obligation, to increase the OC in the cover pool. (See "Covered bond analysis")
- ***Cover pool concentration****:* The cover pool has the following concentrations: (1) geographical concentration, with a significant proportion of the loans backed by claims against public sector entities in Germany (30.2%) and particular concentration in Bavaria (23.7%) and Berlin (22.4%); and (2) obligor concentration, with the 10 largest obligors accounting for 46.7% of the total cover assets. (See "Cover pool analysis")
- ***Market risks***: Following a CB anchor event, covered bondholders, to achieve timely principal payment, might need to rely on proceeds raised through the sale of, or borrowing against, the cover pool assets. The market value of these assets may be subject to high volatility after a CB anchor event. In addition, covered bondholders might have exposure to interest rate and currency risks. (See "Covered bond analysis")
- ***Time subordination****:* After a CB anchor event, later-maturing covered bonds are subject to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. This subordination could lead to the erosion of OC before any payments are made to later-paying covered bonds. (See "Covered bond analysis")
- ***Lack of liquidity facility*: **The programme would not benefit from any designated source of liquidity if cash flow collections are interrupted. (See "Covered bond analysis")

Key characteristics

Exhibit 2
Covered bond characteristics

Moody's Programme Number:	199
Issuer:	Deutsche Pfandbriefbank AG
Covered Bond Type:	Public Sector Loans
Issued under Covered Bonds Law:	Yes
Applicable Covered Bonds Law:	German *Pfandbrief* Act
Entity used in Moody's TPI analysis:	Deutsche Pfandbriefbank AG
CR Assessment:	Unpublished
CB Anchor:	CR assessment +1 notch
Senior unsecured/deposit rating:	n/a
Total Covered Bonds Outstanding:	€12,781,259,958
Main Currency of Covered Bonds:	EUR (94.6%)
Extended Refinance Period:	No
Principal Payment Type:	Hard bullet
Interest Rate Type:	Fixed rate covered bonds (91.3%), Floating rate covered bonds (8.7%)
Committed Over-Collateralisation:	2% (on an Unstressed NPV basis)
Current Over-Collateralisation:	12.0% (on an Unstressed NPV basis)
Intra-group Swap Provider:	No
Monitoring of Cover Pool:	Cover pool monitor (*Treuhänder*), mandatory by operation of the *Pfandbrief* Act
Trustees:	n/a
Timely Payment Indicator:	High
TPI Leeway:	n/a

Sources: Moody's Investors Service, issuer data

Exhibit 3
Cover pool characteristics

Size of Cover Pool:	€14,597,672,513
Main Collateral Type in Cover Pool:	Public-sector (100.0%)
Main Asset Location of Ordinary Cover Assets:	Germany (30.2%)
Main Currency:	Euro (93.1%)
Loans Count:	598
Number of Borrowers:	303
Concentration of 10 Biggest Borrowers:	46.7%
Interest Rate Type:	Fixed rate assets (71.8%), Floating rate assets (28.2%)
Collateral Score:	12.7%
Cover Pool Losses:	12.7%
Further Cover Pool Details:	See "Cover pool description"
Pool Cut-off Date:	30 June 2019

Sources: Moody's Investors Service, issuer data

Exhibit 4
Transaction counterparties

Counterparty Type	Transaction Counterparty
Sponsor	Deutsche Pfandbriefbank AG
Servicer	Deutsche Pfandbriefbank AG
Back-up Servicer	NR
Back-up Servicer Facilitator	NR
Cash Manager	Deutsche Pfandbriefbank AG
Back-up Cash Manager	NR
Account Bank	Deutsche Pfandbriefbank AG
Standby Account Bank	NR
Account Bank Guarantor	NR

Sources: Moody's Investors Service, issuer data

Covered bond description

The covered bonds issued under the public sector covered bond programme of Deutsche Pfandbriefbank AG are full recourse to the issuer. Upon a CB anchor event, covered bondholders would have access to a cover pool of public sector loan receivables.

Structure description

The bonds

All outstanding covered bonds have a bullet repayment at maturity, without any extension period for the repayment of the bonds.

Issuer recourse

The covered bonds are full recourse to the issuer. Therefore, the issuer is obliged to repay principal and pay interest on the covered bonds.

Recourse to cover pool and over-collateralisation

If the issuer becomes insolvent, the covered bondholders would have priority claims over a pool of assets (cover pool). (See "Cover pool description" for the cover pool characteristics and "Cover pool analysis" for our analysis of the pool)

As of June 2019, the level of OC in the programme was 12.0% on a unstressed NPV basis.

The current covered bond rating relies on an OC that exceed the minimum legal requirements by the German *Pfandbrief* Act. The act requires that the OC exceed the principal balance of the bonds by 2% on an unstressed NPV basis. Based on data as of 30 June 2019, 5.5% of OC is sufficient to maintain the current covered bond rating, which is higher than committed OC. This shows that our analysis currently relies on OC that is not in committed form.

Although the issuer has the ability to increase the OC in the cover pool if collateral quality deteriorates below a certain threshold, the issuer does not have any obligation to do so. The failure to increase OC following a deterioration of the collateral could lead to a negative rating action.

Legal framework

The covered bonds are governed by the *Pfandbrief* Act. There are a number of strengths in this legislation, including the regulation of the issuer by BaFin, as well as certain minimum requirements for the covered bonds and the cover pool. No specific structural features beyond the statutory requirements are implemented for Deutsche Pfandbriefbank AG - Public-Sector Covered Bonds. (See Covered Bonds: Germany - Legal Framework for Covered Bonds, August 2015, for a description of the general legal framework for *Hypothekenpfandbriefe* governed by the *Pfandbrief* Act.)

Covered bond analysis

Our credit analysis of the covered bonds primarily focuses on the issuer's credit quality, refinancing risk, interest rate risk and currency risk, as well as the probability that payments on the covered bonds would be made in a timely fashion following a CB anchor event, which we measure using the Timely Payment Indicator (See "Timely Payment Indicator").

Primary analysis

Issuer analysis - Credit quality of the issuer

The reference point for the issuer's credit strength in our analysis is the CB anchor, which for covered bond programmes under the covered bond law in Germany is the CR Assessment plus one notch. The CR Assessment of the issuer is unpublished.

Issuer analysis - Dependency on the issuer's credit quality

The credit quality of the covered bonds depends primarily on the credit quality of the issuer. If the issuer's credit strength were to deteriorate, there would be a greater risk that a CB anchor event would occur, leading to refinancing risk for the covered bonds. Consequently, the credit quality of the covered bonds would deteriorate unless other credit risks were to decrease.

In the event that the CB anchor deteriorates, the issuer would have the ability, but not the obligation, to increase the OC in the cover pool. Failure to increase the level of OC under these circumstances could lead to a negative rating action.

Reasons for the high level of dependency of the covered bonds with the issuer also include exposure to decisions made by the issuer in its discretion as manager of the covered bond programme. For example, before a CB anchor event, the issuer may add new assets to the cover pool and remove assets from the cover pool, issue further bonds and enter new hedging arrangements. Such actions could reduce the value of the cover pool.

As with most covered bonds in Europe, there are few contractual restrictions on the future composition of the cover pool, which creates substitution risk. Nevertheless, cover pool quality over time will be protected by, among other things, the requirements of the German *Pfandbrief* Act, which specifies what types of assets are eligible. (See "Moody's related publications: Covered Bond Legal Frameworks")

Refinancing risk

Following a CB anchor event, the "natural" amortisation of the cover pool assets alone cannot be relied on to repay the principal. We assume that funds must be raised against the cover pool at a discount if covered bondholders are to receive timely principal payment. Where the portion of the cover pool that is potentially exposed to refinancing risk is not contractually limited, our expected loss analysis typically assumes that this amount is in excess of 50% of the cover pool.

After a CB anchor event, the market value of these assets may be subject to volatility. Examples of the stressed refinancing margins we use for different types of prime-quality assets are published in our Rating Methodology. (See "Moody's related publications - Moody's Approach to Rating Covered Bonds")

Aspects of this covered bond programme that are refinancing-positive include:

» *Pfandbrief* Act: The cover pool administrator (*Sachwalter*) has the ability to sell all or part of the cover pool, with or without all or parts of the liabilities attached.

» The depth of the German market and the high level of support provided to *Pfandbriefe* in Germany, refinancing risk is perceived as lower than in most other jurisdictions. In the modelling of this transaction, Moody's has used refinance margins for public-sector claims that are lower than the refinance margins used for public-sector claims in most other jurisdictions.

» The issuer is also required to cover potential liquidity gaps over the next 180 days between payments expected to be received under the cover pool assets and the payments due under the outstanding covered bonds.

» In general, the relatively liquid nature of high quality public-sector debt, which should improve the sales value of the cover pool. According to the issuer 77.6% of the public-sector debt would be eligible for repo transactions with the central bank.

Aspects of this covered bond programme that are refinancing-positive include:

» The programme does not benefit from any contractual provisions to allow for an extension of a principal refinancing period; it is our understanding that all *Öffentliche Pfandbriefe* issued under this programme will have a hard bullet repayment with no extension period.

» Moody's expects that the cover pool assets will have a higher weighted-average life compared to the outstanding *Öffentliche Pfandbriefe*.

Interest rate and currency risk

As with the majority of European covered bonds, there is potential for interest rate and currency risks, which could arise from the different payment promises and durations made on the cover pool and the covered bonds.

Exhibit 5
Overview of assets and liabilities

	WAL Assets (Years)	WAL Liabilities (Years)	Assets (%)	Liabilities (%)
Fixed rate	9.6	7.7	71.8%	91.3%
Variable rate	6.7	7.9	28.2%	8.7%

WAL: weighted average life
Sources: Moody's Investors Service, issuer data

In the event of issuer insolvency, we currently do not assume that the *Sachwalter* would always be able to efficiently manage any natural hedge between the cover pool and the covered bonds. Therefore, following a CB anchor event, our model would separately assess the impact of increasing and decreasing interest rates on the expected loss of the covered bonds, taking the path of interest rates that leads to the worst result. The interest rate and currency stresses used over different time horizons are published in our Rating Methodology.

Aspects of this covered bond programme that are market-risk positive include:

» The requirement under the *Pfandbrief* Act that the stressed present value OC of the cover pool must exceed, by at least 2%, the total of outstanding covered bonds issued against the cover pool and the requirement that *Pfandbrief* issuers must regularly run stress tests regarding interest rate and foreign-exchange risks

» Moody's understands that Deutsche *Pfandbriefbank* opted for the so-called dynamic approach, which includes a parallel movement of the interest rate curve by at least 100 basis points, and Deutsche Pfandbriefbank runs a dynamic stress test for exchange rate risk, in order to meet mandatory stress tests requirements.

» Low currency risk. As currently, the vast majority of assets (93.1%) and liabilities (94.6%) are denominated in Euros.

Aspects of this covered bond programme that are market-risk negative include:

» A potential sale of fixed-rate assets to meet due payments on covered bonds following issuer's default could lead to a crystallisation of mark-to-market losses caused by interest rate movements upon issuer default. 71.8% of the cover pool assets have a fixed rate.

» There is unhedged currency and interest rate risk exist in this programme. 91.3% of the covered bonds outstanding pay fixed interest rate, while 71.8% of the cover assets are fixed rate assets. Although vast majority of assets (93.1%) and liabilities (94.6%) are denominated in Euros, there is still unhedged residual currency risk.

Timely Payment Indicator

Our Timely Payment Indicator (TPI) assesses the likelihood that timely payments would be made to covered bondholders following a CB anchor event, and thus determines the maximum rating a covered bond programme can achieve with its current structure while allowing for the addition of a reasonable level of OC. We have assigned a TPI of High to these covered bonds, in line with other mortgage covered bonds issued under the *Pfandbrief* Act.

The TPI-positive aspects of this covered bond programme include:

» The high level support provided to *Pfandbriefe* in Germany

» The strength of the German *Pfandbrief* legislation, including:

  - The *Sachwalter* would take over management responsibility of the covered bond programme at the time of the declaration of the issuer's bankruptcy, or earlier if BaFin were to consider it necessary.
  - The *Sachwalter* would act independently from the issuer's insolvency administrator. Having an independent cover pool administrator might reduce potential conflicts of interest between the covered bondholders and other creditors.
  - The issuer is required to cover potential liquidity gaps over the next 180 days between payments expected to be received under the cover pool assets and payments due under the outstanding covered bonds.
  - Set-off: We understand that the *Pfandbrief* Act excludes from set-off loans registered in the cover pool that are under German law and located in Germany.

» The credit quality of the cover pool assets, reflected by the collateral score of 12.7%.

The TPI-negative aspects of this covered bond programme include:

» All covered bonds outstanding have a bullet repayment at maturity, without any extension period for the repayment of the bonds.

» The covered bond programme does not benefit from any designated source of liquidity if cash flow collections are interrupted.

» The currency and interest rate mismatch mentioned above.

» Commingling risk: Upon the appointment of the *Sachwalter*, it is our understanding that the *Sachwalter* has a priority claim on all cash flows stemming from the cover pool assets. However, these cash flows have to be separated from other cash flows to the issuer before they can be used to make payments to covered bondholders.

Additional analysis

Liquidity

The covered bond programme would not benefit from any designated source of liquidity if cash flow collections were to be interrupted. However, before an issuer default, the *Pfandbrief* Act requires the issuer to cover potential liquidity gaps for the next 180 days and to maintain a minimum OC level of 2%. After an issuer default, the *Sachwalter* would have the ability to sell a portion of the cover pool to make timely payments on the bonds.

Time subordination

After a CB anchor event, later-maturing covered bonds would be subject to time subordination. Principal cash collections may be used on a first-come, first-served basis, paying earlier-maturing covered bonds before later-maturing covered bonds. Such payments could result in the erosion of OC before any payments are made to later-paying covered bonds.

Cover pool description

Pool description as of 30 June 2019

As of 30 June 2019, the cover pool consisted entirely of claims against public sector entities.

The cover assets are mostly direct claims against sovereign (32.8%), regional (30.9%) or local governments (6.1%) or claims guaranteed by such entities. The remaining part of the cover pool are claims against European financial institutions. The majority of the cover assets are in Germany (30.2%), Austria (27.7%) and France (21.0%).

On a nominal value basis, the cover pool assets total €14.6 billion, which back €12.8 billion in covered bonds, resulting in an OC level of 12.0% on an unstressed present value basis. As of cut-off date all the loans are performing and the exposure to top 10 largest borrowers is 46.7%.

Exhibits below show more details about the cover pool characteristics.

Public sector loans

Exhibit 6

Cover pool summary - Public Sector Assets

Overview		Specific Loan and Borrower characteristics	
Asset type:	Public Sector	Repo eligible loans / bonds:	77.6%
Asset balance:	14,597,672,513	Percentage of fixed rate loans / bonds:	71.8%
WA remaining term (in months):	137	Percentage of bullet loans/ bonds:	76.2%
Number of borrowers:	303	Loans / bonds in non-domestic currency:	6.9%
Number of loans / bonds:	598	**Performance**	
Exposure to the 10 largest borrowers:	46.7%	Loans / bonds in arrears (≥ 2months - < 6months):	0.0%
Average exposure to borrowers:	48,177,137	Loans / bonds in arrears (≥ 6months - < 12months):	0.0%
		Loans / bonds in arrears (≥ 12months):	0.0%
		Loans / bonds in a foreclosure procedure:	0.0%

Source: Moody's Investors Service, issuer data

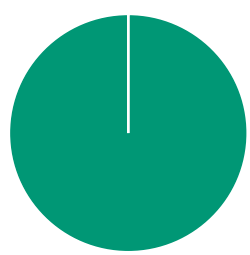
Exhibit 7
Cover pool characteristics

Exhibit A
Borrower type by country

	Germany	Austria	France	Other	Totals
Direct claim against supranational	0.0%	0.0%	0.0%	1.5%	1.5%
Direct claim against sovereign	7.3%	21.8%	1.4%	2.4%	32.8%
Loan with guarantee of sovereign	0.0%	2.5%	4.2%	7.0%	13.8%
Direct claim against region/federal state	17.5%	0.0%	7.2%	6.2%	30.9%
Loan with guarantee of region/federal state	4.1%	3.0%	0.4%	1.9%	9.4%
Direct claim against municipality	0.4%	0.0%	4.1%	1.6%	6.1%
Loan with guarantee of municipality	0.9%	0.5%	1.3%	0.0%	2.7%
Others	0.0%	0.0%	2.3%	0.6%	2.9%
	30.2%	27.7%	21.0%	21.1%	

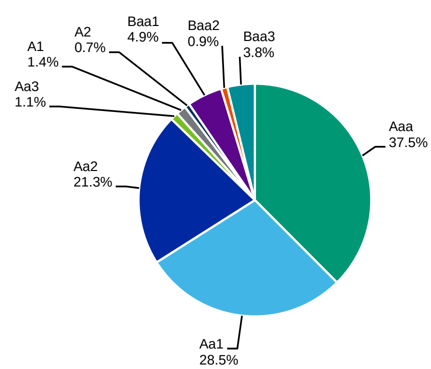
Sources: Moody's Investors Service, issuer data

Exhibit B
Percentage of public sector assets



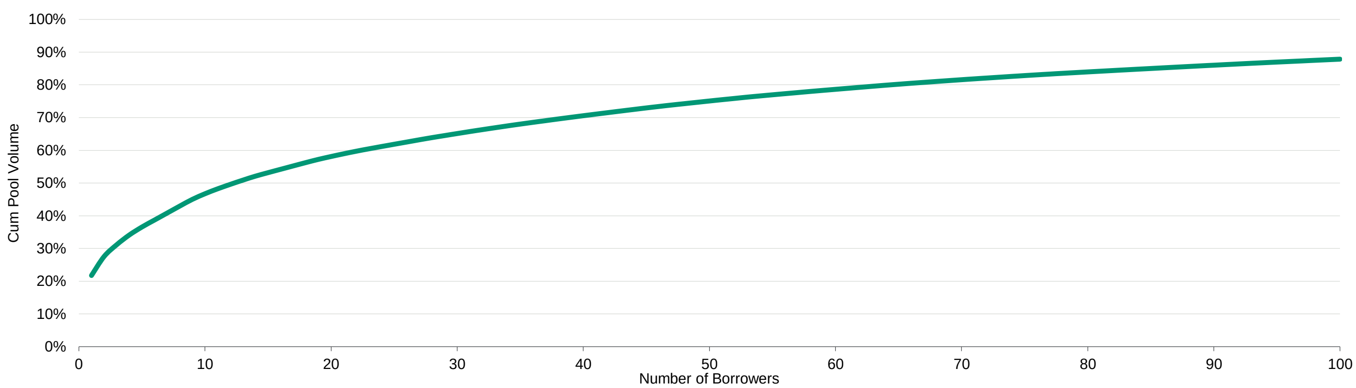
Sources: Moody's Investors Service, issuer data

Exhibit C
Pool distribution by country exposure rating



Sources: Moody's Investors Service, issuer data

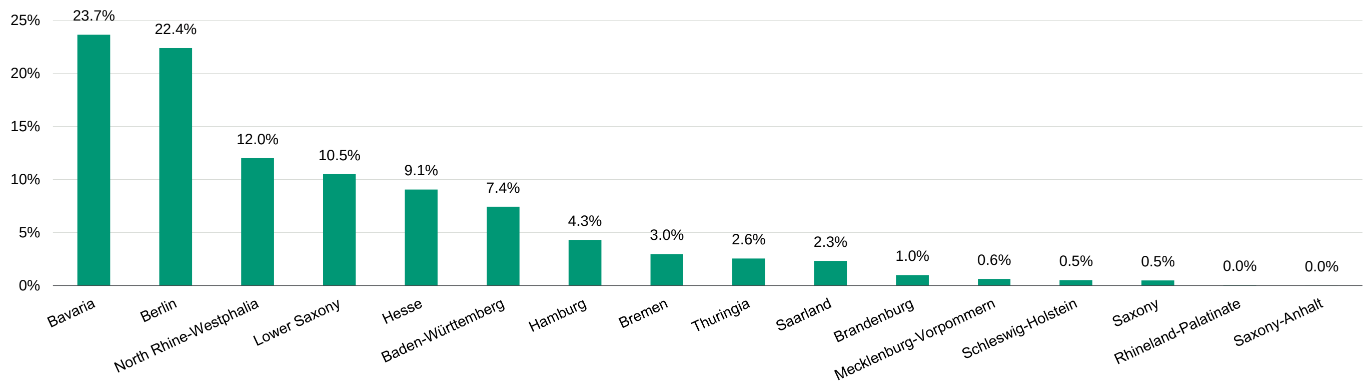
Exhibit D
Borrower concentration



Sources: Moody's Investors Service, issuer data

Exhibit E

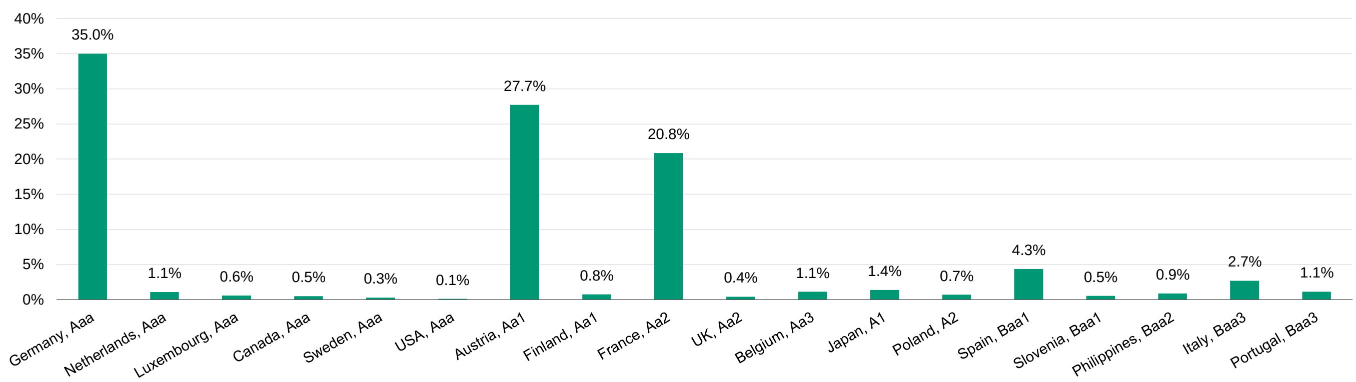
Main country regional distribution



Sources: Moody's Investors Service, issuer data

Exhibit F

Distribution by country exposure, rating



Sources: Moody's Investors Service, issuer data

Cover pool monitor

Pursuant to the *Pfandbrief* Act, the regulator (BaFin) has appointed a cover pool monitor (*Treuhänder*). A cover pool monitor is responsible for monitoring various cover pool operations. (See "Moody's related publications: Covered Bond Legal Frameworks")

Cover pool analysis

Our credit analysis of the pool takes into account specific characteristics of the pool, as well as legal risks.

Primary cover pool analysis

We calculate the collateral score using a multifactor model that is created through a Monte Carlo simulation. Our analysis takes into account, among other factors, the impact of concentration on borrower, regional and country levels, as well as the credit quality of the individual borrowers.

For this programme, the collateral score of the current pool is 12.7%, which is more than the average collateral score in other German public sector covered bonds of 9.0%. (For details, see "Moody's related publications - Moody's Global Covered Bonds Monitoring Overview: Q2 2018")

From a credit perspective, we view the following characteristics of the cover assets as positive:

- All loans are performing as of the cut-off-date of this report.
- The obligors and/or the guarantors are generally of high credit quality.
- The cover pool benefits to some extent from international diversification and some regional diversification within Germany.

From a credit perspective, we regard the following portfolio characteristics as negative:

- The cover pool has obligor concentration risk with the exposure to ten largest borrowers being 48.5%.
- The cover pool also has geographical concentration risk: 30.2% of the borrowers are based in Germany and within Germany the claims against public-sector entities located in the in Bavaria and Berlin account for 46.1%.

Moody's has considered the obligor and geographical concentration in its modelling. Furthermore, the credit quality of the obligors in general is high.

Comparables

Exhibit 8

Comparables - Deutsche Pfandbriefbank AG - Public Sector Covered Bonds and other selected deals

PROGRAMME NAME	Deutsche Pfandbriefbank AG - Public-Sector Covered Bonds	Norddeutsche Landesbank GZ - Public-Sector Covered Bonds	UniCredit Bank AG - Public-Sector Covered Bonds	Commerzbank AG - Public-Sector Covered Bonds
Overview				
Programme is under the law	Pfandbrief Act	Pfandbrief Act	Pfandbrief Act	Pfandbrief Act
Main country in which collateral is based	Germany	Germany	Germany	Germany
Country in which issuer is based	Germany	Germany	Germany	Germany
Total outstanding liabilities	12,781,259,958	12,916,311,511	3,800,589,304	7,499,213,521
Total assets in the Cover Pool	14,597,672,513	16,836,143,429	5,317,389,969	9,853,014,951
Issuer name	Deutsche Pfandbriefbank AG	Norddeutsche Landesbank GZ	UniCredit Bank AG	Commerzbank AG
Issuer CR assessment	Unpublished	Baa2(cr)	A1(cr)	A1(cr)
Group or parent name	n/a	n/a	n/a	n/a
Group or parent CR assessment	n/a	n/a	n/a	n/a
Main collateral type	Public Sector	Public Sector	Public Sector	Public Sector
Collateral types	Public Sector 100%, Residential 0% Commercial 0%, Other/Supplementary assets 0%	Public Sector 96%, Residential 0% Commercial 0%, Other/Supplementary assets 4%	Public Sector 100%, Residential 0% Commercial 0%, Other/Supplementary assets 0%	Public Sector 99%, Residential 0% Commercial 0%, Other/Supplementary assets 1%
Ratings				
Covered bonds rating	Aa1	Aa1	Aaa	Aaa
Entity used in Moody's EL & TPI analysis	Deutsche Pfandbriefbank AG	Norddeutsche Landesbank GZ	UniCredit Bank AG	Commerzbank AG
CB anchor	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch	CR Assessment + 1 notch
CR Assessment	Unpublished	Baa2(cr)	A1(cr)	A1(cr)
SUR / LT Deposit	n/a	Baa2	A2	A1
Unsecured claim used for Moody's EL analysis	Yes	Yes	Yes	Yes
Value of Cover Pool				
Collateral Score	12.7%	5.5%	2.9%	5.8%
Collateral Score excl. systemic risk	n/a	n/a	n/a	n/a
Collateral Risk (Collateral Score post-haircut)	6.3%	2.8%	1.6%	3.2%
Market Risk	6.4%	5.7%	6.3%	10.4%
Over-Collateralisation Levels				
Committed OC*	2.0%	2.0%	2.0%	2.0%
Current OC	12.0%	26.3%	42.7%	26.2%
OC consistent with current rating	5.5%	4.5%	1.0%	5.5%
Surplus OC	6.5%	21.8%	41.7%	20.7%
Timely Payment Indicator & TPI Leeway				
TPI	High	High	High	High
TPI Leeway	Not Applicable	1	4	4
Reporting date	30 June 2019	31 March 2019	29 March 2019	31 March 2019

(note*) We consider this level of OC as committed according to our methodology even though the level of OC provided via the asset cover test might be higher because the issuer could reduce the level of OC down to this level without a rating impact on our covered bond rating.
Source: Moody's Investors Service

Additional cover pool analysis

Legal risks for assets outside of Germany

In the event of the issuer's insolvency, we believe that cover pool assets outside of Germany would be less protected against claims of the issuer's other creditors than would be assets in Germany. In particular, we have identified and analysed the following scenarios:

» Claims against borrowers outside of Germany or loans not governed by German law: In the case of loans not governed by German law, the borrower might be allowed to exercise set-off, thereby reducing the amount that would be payable to the benefit of covered bondholders. Loans outside of Germany account for 69.8% of the cover pool. However, borrower set-off risk is low because the issuer neither takes deposits nor acts as a swap counterparty for clients outside of Germany.

» Loans to borrowers outside of the European Economic Area (EEA): In addition to the above risk, Moody's understands that these cover pool assets may not be available to the covered bondholders on a priority basis because other (unsecured) creditors of the issuer may successfully access the assets in the cover pool. This actions might result in a lower recovery. Loans outside the EEA (including supra-national institution located outside the EEA) accounted for 2.9% of the cover pool as of 30 June 2019.

Methodology and monitoring

The primary methodology we use in rating the issuer's covered bonds is "Moody's Approach to Rating Covered Bonds", published in February 2019. Other methodologies and factors that may have been considered in the rating process can also be found on http://www.moodys.com. In addition, we publish a weekly summary of structured finance credit, ratings and methodologies, available to all registered users of our website, at www.moodys.com/SFQuickCheck.

We expect the issuer to deliver certain performance data to us on an ongoing basis. In the event that this data is not made available to us, our ability to monitor the ratings may be impaired. This lack of data availability could negatively affect the ratings or, in some cases, our ability to continue to rate the covered bonds.

Moody's related publications

Rating Methodology

» Moody's Approach to Rating Covered Bonds, February 2019 (1154442)

Special Comments

» Covered Bonds - Global: 2019 Outlook, December 2018 (1141185)

» Covered Bonds: Sector update – Q2 2019: First positive impact and block chain covered bonds from France; Libor transition continues, August 2019 (1184222)

Performance Overview

» Deutsche Pfandbriefbank AG - Public-Sector Covered Bonds, 03 September (SF483415)

Webpages

» Covered Bonds: www.moodys.com/coveredbonds

» Covered Bond Legal Frameworks: www.moodys.com/Pages/CoveredBondLegalFrameworks.aspx

To access any of these reports or webpages, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

REPORT NUMBER 1187519

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