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# GERMAN COVERED BONDS

Questions and answers on the legal framework

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# PREFACE

Dear Ladies and Gentlemen

A good 125 years ago, on 13 July 1899, the Mortgage Bank Act was enacted in Germany, which significantly developed the pfandbrief legislation in Germany. In July 2005, it was replaced by the Pfandbrief Act, which has been regularly updated since then. The last significant amendments came into force in 2021 and 2022, transposing the European Covered Bond Directive into German law. The Pfandbrief Act is likely to have been the inspiration for many European regulations. Some regulations, such as the possibility of a maturity extension (soft bullet) after the appointment of the cover pool administrator, were introduced into German pfandbrief law via the European Covered Bond Directive.

The German pfandbrief legislation ensures the regulatory requirements for „European Covered Bond (Premium)“ for mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe. These covered bonds therefore enjoy regulatory privileges, such as reduced risk weights for banks or recognition as high quality liquid assets within the scope of the minimum liquidity coverage ratio. In addition, the European Central Bank accepts German pfandbriefe as collateral for loans granted. This study contains a detailed overview of the regulatory privileges of pfandbriefe, which contribute to their attractiveness for investors in Germany and abroad.

The Pfandbrief Act now also enables the issue of digital pfandbriefe. The first digital pfandbrief was issued at the beginning of August 2024. Overall, the number of bonds that utilise blockchain technology is still relatively small. At the end of June 2024, a total of 84 German financial institutions had a licence to issue pfandbriefe and new issuers are constantly being added. The appeal of this refinancing instrument among issuers and investors appears to be unbroken, even after many years. This is probably due to the fact that the legal basis of the pfandbrief has been repeatedly adapted to new requirements. Reason enough for us to answer recurring and fundamental questions about German pfandbrief legislation in this study.

The “FAQ German pfandbrief legislation” is also available in German. All current reports are available on our website [www.dzhyp.de/en/about-us/market-research](http://www.dzhyp.de/en/about-us/market-research).

Kind regards

**DZ HYP**

November 2024

- » **A total of 84 banks in Germany are authorised to issue pfandbriefe, which we see as evidence of their high relevance.**
- » **Regulatory privileges, which are underpinned by German pfandbrief legislation, increase the attractiveness for investors.**
- » **The pfandbrief legislation also permits digital pfandbriefe, although this format is still at the beginning of a long journey.**

### **Summary**

A good 125 years ago, on 13 July 1899, the Mortgage Bank Act was enacted in Germany, which decisively shaped the German pfandbrief legislation. In July 2005, it was replaced by the Pfandbrief Act, which has been regularly updated since then. The last significant amendments came into force in 2021 and 2022, transposing the European Covered Bond Directive into German law. At the end of June 2024, a total of 84 German financial institutions had a licence to issue pfandbriefe and new issuers are constantly being added. The attractiveness of this refinancing instrument for issuers and investors appears to be unbroken, even after many years. This is probably due to the fact that the legal basis of the pfandbrief has been repeatedly adapted to new requirements. Reason enough for us to present the current German pfandbrief legislation in this study.

The German pfandbrief legislation ensures the regulatory requirements for "European Covered Bonds (Premium)" for mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe. These covered bonds therefore enjoy regulatory privileges, such as reduced risk weights for banks or recognition as high quality liquid assets within the scope of the minimum liquidity coverage ratio. In addition, the European Central Bank accepts German pfandbriefe as collateral for loans granted. This study contains a detailed overview of the regulatory privileges of pfandbriefe, which contribute to their attractiveness for investors in Germany and abroad.

The Pfandbrief Act also enables the issue of digital pfandbriefe. The first digital pfandbrief was issued at the beginning of August 2024. Overall, the number of bonds that utilise blockchain technology is still relatively small. However, the journey for this bond format has probably only just begun. We therefore briefly summarise key points on this topic and provide an overview of the differences compared to analogue pfandbriefe.

## LEGAL FRAMEWORK FOR PFANDBRIEFE FROM GERMANY

The following explanations in this chapter mainly refer to the presentation of German covered bond legislation in the "European Covered Bond Fact Book 2023" of the European Covered Bond Council (ECBC) and the study by Moody's "Germany's legal framework for covered bonds" of 27 June 2024. We have also taken into account the information in the country report for Germany on the website of the Round Table Covered Bond Legislation (RTCBL) of the Association of German Pfandbrief Banks (vdp).

### Sources

The purpose of our study is to present the key features and functioning of German covered bank bonds (pfandbriefe). It does not claim to be exhaustive, in particular with regard to the contractual provisions set out in the programme documentation of issuers. It is also not to be understood as a legal opinion, but looks at the characteristics of German covered bonds on the basis of publicly available information and attempts to categorise them from an economic, credit-relevant perspective.

### Aim of this study

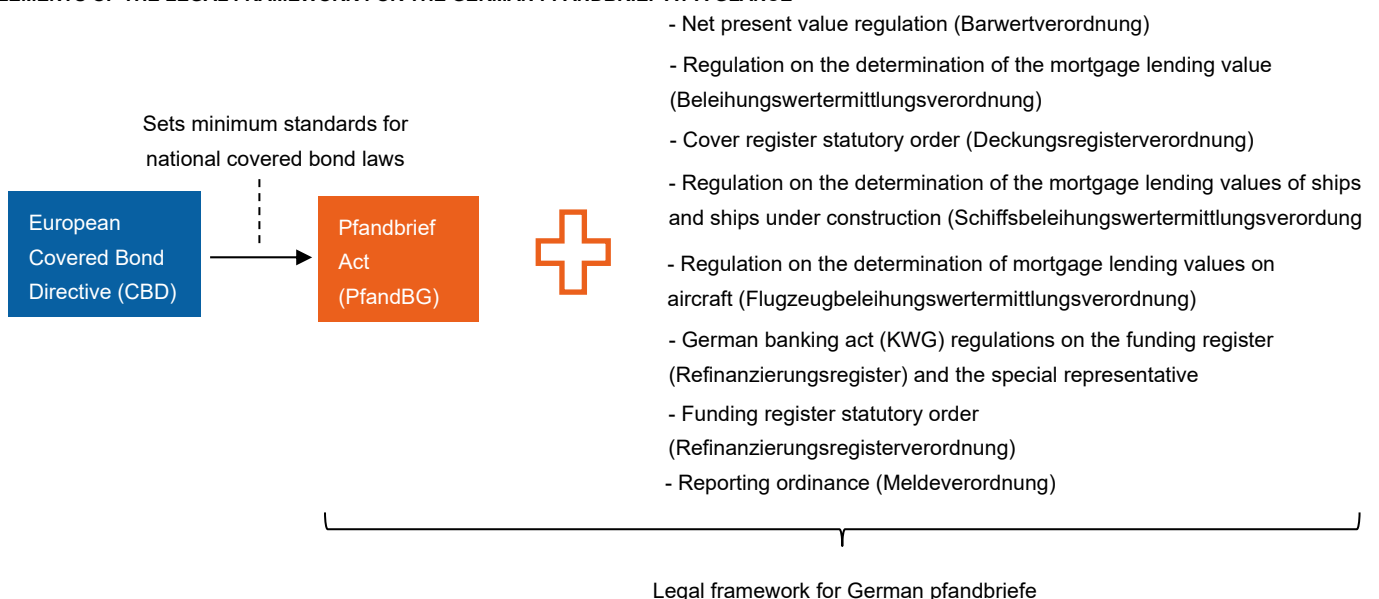
### Overview of the legal bases

#### What are the legal bases?

The Pfandbrief Act (PfandBG) is the central building block for the legal framework of pfandbriefe from Germany. It was amended in May 2021 to transpose the European Covered Bond Directive (CBD) into German law. The amendments entered into force in two stages. The first amendments came into force on 1 July 2021. These include the authorisation of the cover pool administrator (Sachwalter) to extend the maturity of pfandbriefe by up to twelve months under certain conditions. In addition to the PfandBG, there are ordinances/ regulations issued by the BaFin. They elaborate on the partly general requirements of the PfandBG. The German pfandbrief legislation is going to be updated on a regular basis. You find an up to date version of the PfandBG and relevant ordinances/ regulations on vdp's website.

### PfandBG forms the legal basis

#### ELEMENTS OF THE LEGAL FRAMEWORK FOR THE GERMAN PFANDBRIEF AT A GLANCE



### **Who is responsible for the public supervision of the covered bond market?**

The German Financial Supervisory Authority (BaFin) exercises the public supervision over a bank's pfandbrief business. Pfandbrief issuers are thus not only under the supervision of the relevant banking supervisory authority as a bank, such as the European Central Bank (ECB), but also under special public supervision by BaFin with regard to their pfandbrief business.

**BaFin supervises the pfandbrief business**

### **How is the public supervision structured?**

BaFin is authorised to issue all orders that are suitable and necessary to keep the business of the pfandbrief banks in compliance with the Pfandbrief Act and the legal ordinances issued in this connection. Of highest importance is the right of the supervisory authority to examine the cover pool assets of the pfandbriefe and thus compliance with the statutory requirements on a random basis. As a rule, these audits are carried out every three years. Furthermore, BaFin can take its own measures at any time, such as issuing instructions to the management or appointing supervisors with regard to the cover pool. BaFin also proposes an independent administrator of the cover pool (cover pool administrator or Sachwalter) at the latest when the bank becomes insolvent.

**Pool audit by BaFin usually after every three years**

As the competent supervisory authority for the pfandbrief business of German banks, BaFin has the authority to set individual cover add-ons for each individual cover pool. This cover add-on can be ordered by administrative act if the minimum cover requirement laid down by the PfandBG is deemed by BaFin to be insufficient to cover the risks due to the specific composition of the cover pool. The explanatory memorandum to this part of the Pfandbrief Act lists the following examples, among others, which could justify a higher minimum cover requirement:

**Information rights and intervention options of BaFin**

- » The cover pool assets' market values deviate considerably from the value assumptions factored into the cover calculation.
- » There are significant risk concentrations in the cover pool.
- » The cover pool contains a considerable proportion of assets whose intrinsic value depends on the solvency of companies associated with the pfandbrief bank.
- » Significant interest and exchange-rate mismatches exist between the cover assets and pfandbrief liabilities where these are not already adequately taken into account through the requirement to provide appropriate risk cover based on the risk-adjusted cover calculation.

The data specified in the reporting ordinance, which the pfandbrief banks must regularly transmit to BaFin, is intended to enable the supervisory authority to monitor and better assess any risks. The day-to-day business of the pfandbrief bank is monitored by an independent cover pool monitor (Treuhänder) and is also authorised to report to BaFin.

### **Requirements for issuers**

#### **Who is allowed to issue covered bonds?**

Credit institutions based in Germany may issue pfandbriefe, if BaFin grants a permission for the pfandbrief business. The German PfandBG calls banks that issue pfandbriefe "pfandbrief banks".

**Permission from BaFin required**

**Are there any special (licensing) requirements for issuers?**

Yes. The issuance of pfandbriefe requires the permission from BaFin, whereby banks have to apply separately for a "pfandbrief license" for mortgage pfandbriefe, public sector pfandbriefe, ship pfandbriefe and aircraft pfandbriefe. The pfandbrief license is granted if the credit institution meets certain minimum requirements. The general requirements include, among others, the following points:

- » The credit institution must have a license to conduct lending business. By means of a business plan, the pfandbrief issuer must prove to BaFin that the pfandbrief business is to be conducted regularly.
- » The bank's core capital must amount to at least EUR 25m.
- » The pfandbrief bank must have a risk management system suitable for pfandbrief business. The organisational structure and the equipment of the credit institution must be set up for the pfandbrief business.

The PfandBG places specific requirements on the risk management of a pfandbrief bank. This must ensure that all risks associated with the pfandbrief business, such as default risks, interest rate risks or currency risks as well as operational risks and liquidity risks, can be identified, assessed, managed and monitored. The risk management system must therefore meet the following requirements, among others:

- » Limiting the concentration of risks using a limit system
- » The existence of a procedure that guarantees risk reduction and early information of decision-makers in case of a strong increase of a risk
- » Flexibility and adaptability to changing conditions alongside a review of the risk management system at least annually
- » Regular, but at least quarterly, submission of a risk report to the executive board of the pfandbrief bank
- » The risk management system must be documented in a detailed and comprehensible manner

Once a pfandbrief license has been granted, it can also be withdrawn. However, this is only possible if the bank no longer meets the qualitative requirements of the Pfandbrief Act or has persistently violated provisions of the Pfandbrief Act or accompanying ordinances. Withdrawal is also possible if the pfandbrief bank has not issued any pfandbriefe for two years and is not expected to take up again the pfandbrief business within the next six months. In the event of license withdrawal, BaFin may order the cover pools to be liquidated by a cover pool administrator.

**Is there a public register of all pfandbrief banks and pfandbrief types?**

Yes, BaFin informs on its website, which banks have permission to conduct the pfandbrief business (including the respective pfandbrief type).

**Requirements for obtaining a pfandbrief license****Regular pfandbrief issues****Minimum capital and appropriate risk management****Requirements for risk management****Limit system and management of risks****Flexibility and regular review****License can also be withdrawn again****Public register of the BaFin**

**BAFIN REGULARLY PUBLISHES UPDATED LIST REGARDING THE PFANDBRIEF BANKS**



Source: Bundesanstalt für Finanzdienstleistungsaufsicht (as of 31 July 2024)

**Transaction structure**

**What is the underlying transaction structure of covered bonds?**

The German pfandbrief legislation follows the integrated model. This means that the cover assets remain on the issuer's balance sheet. The entry of all cover assets in a cover register ensures that in the event of insolvency the cover pool and all cover assets can be easily and clearly identified for the benefit of the pfandbrief creditors. At the latest upon insolvency of the pfandbrief bank, the cover pool would be separated from the remaining assets and the cover pool would not fall under the general insolvency proceedings (insolvenzfreies Vermögen).

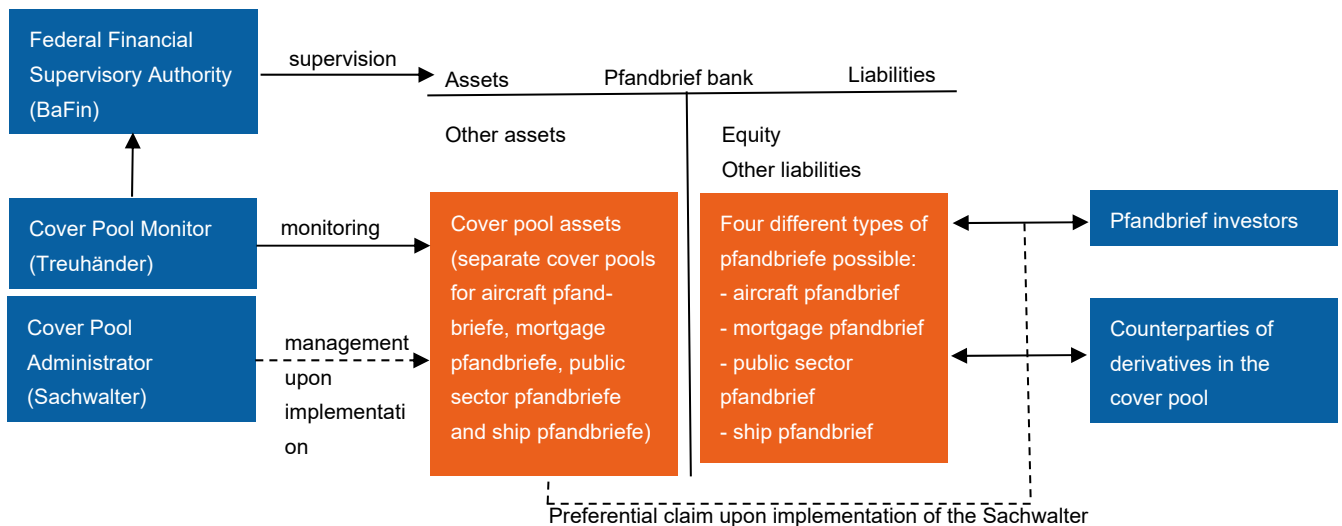
**Integrated model, the cover assets remain on the issuer's balance sheet**

**Is the dual recourse guaranteed?**

Yes. Pfandbriefe are secured bank bonds and fulfil the principle of dual recourse. The pfandbrief creditors have a direct claim against the pfandbrief bank as the issuer of the bonds. Should the pfandbrief bank be insolvent, the pfandbrief creditor would have a priority right with respect to the cover assets. Should the cover assets turn out to be insufficient to satisfy all claims of the pfandbrief creditors, the pfandbrief creditor would still have a claim against the insolvency estate of the issuer.

**Pfandbriefe are secured bank bonds**

**GENERALISED TRANSACTION STRUCTURE OF A PFANDBRIEF**



Source: DZ BANK



**Has a regulatory issuance limit been set?**

No. The Pfandbrief Act does not provide for an issuance limit or a minimum amount outstanding for a bank's pfandbriefe.

**No issuance limit**

**Eligible cover assets****Which cover assets are eligible?****a) Public sector pfandbriefe**

For public sector pfandbriefe, only claims with a link to the public sector can be used as cover assets. The PfandBG specifies detailed requirements, which can be summarised as follows:

**Claims and receivables from local authorities**

- » Claims on domestic sovereign and sub-sovereign governments or public-law institutions authorised to charge fees, raise levies or impose other taxes.
- » Claims on member states of the European Union (EU) or of the European Economic Area (EEA) and/ or their central banks and claims on regional and local authorities from member states of the EU and of the EEA.
- » Claims against Great Britain, the United States of America (USA), Japan, Switzerland and Canada as well as their central banks, regional governments and local authorities, as long as these can be assigned to credit quality step 1 for regulatory purposes.
- » Claims against the European Central Bank (ECB) and other multilateral development banks and international organisations according to the European Banking Regulation (CRR).
- » Public sector entities of a member states of the EU or the EEA.
- » Public entities within the meaning of the CRR domiciled in the USA, Japan, Switzerland and Canada, as long as they comply with credit quality step 1 of the European banking directive.
- » Claims or receivables guaranteed by the above-mentioned states or local authorities. These could also be, for example, state-guaranteed claims against small and medium-sized enterprises.
- » Export finance credits benefiting from a guarantee from a public sector institution or government.

The treaty establishing the European stability mechanism (ESM treaty) provides for the inclusion of collective action clauses (CAC) in the bond terms and conditions of ESM treaty signatory states. Similar clauses also exist in the bond conditions of other countries. They make it possible to subsequently change the bond conditions with the consent of the majority of the creditors. The PfandBG clarifies in § 4a PfandBG that the corresponding regulations in the government bonds (i.e. limited to this "narrow definition" of issuers) do not prevent the eligibility as cover asset and that these are suitable for the cover pool (be it ordinary cover as in the case of public sector pfandbriefe or as additional or substitute cover assets for all other types of pfandbriefe).

**Eligibility as cover for bonds with debt rescheduling clauses is given**

The Pfandbrief Act allows claims on the public sector entities listed above to be fully recognised in cover calculations, irrespective of the debtor's or guarantor's credit rating. The vdp's member institutions have agreed standards for the recognition of the credit quality of public sector entities in pfandbrief cover calculation, which go beyond the requirements of the Pfandbrief Act. The vdp calls this standardised procedure the "vdp Credit Quality Differentiation Model". When including claims on member states of the EEA and their sub-sovereign entities, vdp member institutions factor rating-based discounts into their cover calculation (see table below).

**Pfandbrief Act lacks rating rules for public sector debtors**

**RATING-BASED VALUATION DISCOUNTS/ HAIRCUTS IN THE VDP CREDIT QUALITY DIFFERENTIATION MODEL**

Rating*	Haircut used until 31 December 2019	Haircut used until 31 December 2020	Haircut used until 31 December 2021	Haircut used until 31 December 2022	Haircut used until 31 December 2023	Haircut used since 1 January 2024
AAA to BBB-	0%	0%	0%	0%	0%	0%
BB+	8%	7%	7%	9%	8%	8%
BB	10%	10%	9%	11%	10%	11%
BB-	13%	12%	12%	14%	13%	14%
B+	16%	15%	15%	17%	16%	17%
B	20%	19%	18%	21%	19%	21%
B-	24%	23%	22%	25%	23%	25%
CCC	34%	33%	32%	35%	33%	35%
CC	54%	52%	52%	54%	53%	54%
C	79%	79%	78%	80%	79%	79%
D	100%	100%	100%	100%	100%	100%

Source: vdp, DZ BANK, as of July 2024, \* ratings of S&P or corresponding Fitch or Moody's rating

**b) Mortgage pfandbriefe**

Only mortgages or claims secured by real estate liens that meet certain requirements are eligible as cover assets for mortgage pfandbriefe. Among other things, this means for example that only mortgages may be used as cover assets which are secured on real property, rights equivalent to real property or rights under foreign law which have the same effect as rights equivalent to real property under German law. Further requirements imposed on mortgage loans include mandatory insurance and a mortgage lending value calculation.

**Receivables and loans secured by real estate liens**

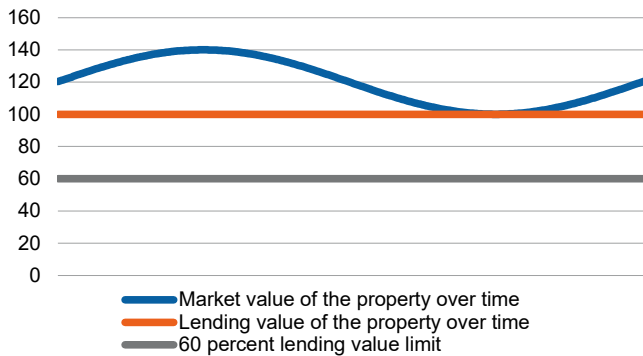
With regard to the calculation of the mortgage lending value, only the long-term, intrinsic or tangible value or real value (Sachwert) as well as the capitalised earnings value or income value (Ertragswert) of a property are taken into account. This means that it is only to be derived on the basis of the permanent characteristics of the land or building and the income to be generated from it in the long run. The income value is decisive for the mortgage lending value. This value may not be exceeded. If the real value is more than 20 percent below the income value, the assumptions on which the income value is based must be checked for their sustainability and corrected if necessary.

**Real value versus capitalised earnings value**

As a rule, the mortgage lending value does not exceed the market value of a property, which fluctuates over time, because speculative elements must not be taken into account when determining the mortgage lending value. The mortgage lending value must be determined by a valuer who is independent of the lending decision. He or she must have the necessary professional experience and appropriate expertise for determining the mortgage lending value. The property must be inspected, with video inspections permitted as an alternative to on-site inspections. In principle, the requirements for the determination of the mortgage lending value are the same for properties located in Germany or abroad.

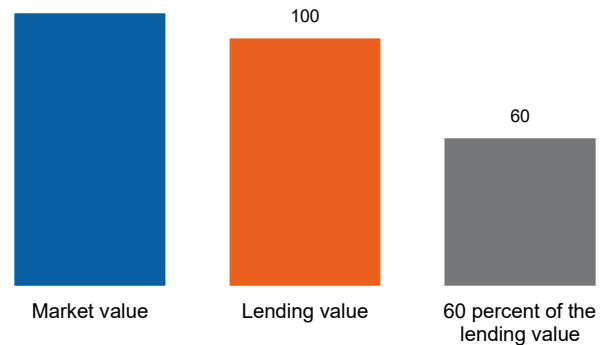
**Mortgage lending value only takes into account the sustainable and long-term properties of a building**

**LENDING VALUE ONLY REFLECTS BUILDING'S PERMANENT ATTRIBUTES**



Source: vdp, DZ BANK

**60 PER CENT LTV LIMIT OFFERS ADDITIONAL PROTECTION**

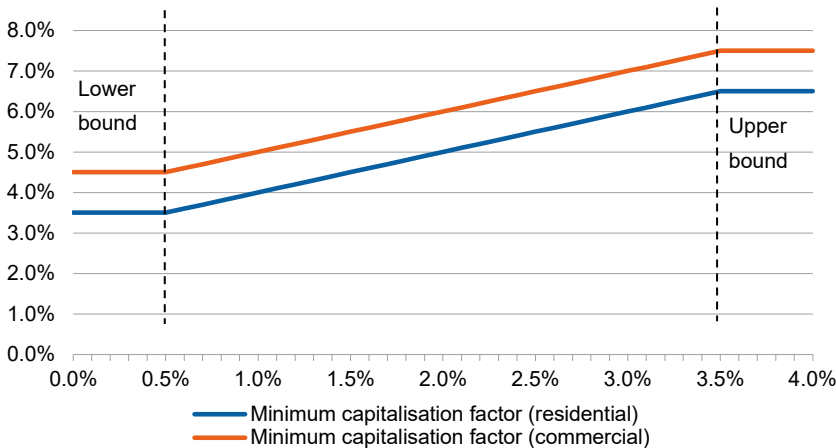


Source: DZ BANK

The rules for determining the mortgage lending value aim to achieve a prudent valuation of the property that is sustainable in the long term. The procedure for determining the mortgage lending value for real estate is defined in more detail by a regulation from BaFin, which was updated in October 2022 (regulation on the determination of the mortgage lending value, BelWertV). The changes also include a new procedure for determining more dynamic anchor values for the minimum capitalisation factors within the income approach. The basis for the new minimum capitalisation factors is the yield of thirty-year German government bonds (Bund) as of 30 November of the respective year. 3 percentage points must be added to this for the valuation of residential properties and 4 percentage points for commercial properties.

**Dynamic minimum capitalisation factors ...**

**BELWERTV DEFINES LOWER AND UPPER BOUNDS FOR MINIMUM CAPITALISATION FACTORS**  
Y-AXIS: MINIMUM CAPITALISATION FACTORS, X-AXIS: BUND YIELD (30 YEARS)



Source: DZ BANK

These minimum capitalisation factors can still be slightly modified by the real estate valuer within the process of the individual valuation of the property. However, the minimum capitalisation factor for residential properties must ultimately be between 3.5 percent and 5.5 percent and for commercial properties between 4.5 percent and 6.5 percent. The new minimum capitalisation factors set on the basis of the Bund yields always apply from 1 January of the following year. They are only adjusted if the new reference interest rate has changed by more than 0.5 percentage points

**... are updated at the end of November of each year**

compared to the previous value. Since the beginning of 2024, a minimum capitalisation factor of 5.5 percent applies for residential real estate and 6.5 percent for commercial real estate.

**ILLUSTRATIVE LENDABLE VALUE CALCULATION: TWO PILLARS PRINCIPLE USING THE EXAMPLE OF A NEWLY-BUILT OFFICE BUILDING**

Income approach (first pillar)		Cost approach (second pillar)	
Land value		Land value	
600 square meter à 5,200 Euro per square meter	3,120,000 Euro	600 square meter à 5,200 Euro per square meter	3,120,000 Euro
Gross income		Value of the building	
2,000 square meters of office space à 30 Euro per square meter and month sustainable rent	720,000 Euro	Building costs: 11,500 cubic meters à 520 Euro per cubic meter	5,980,000 Euro
15 underground parking spaces à 110 Euro per parking space and month	19,800 Euro	Depreciation (0 Euro, as new building)	0 Euro
Gross annual rent	739,800 Euro	Subtotal	5,980,000 Euro
Less operating expenses (costs that are not allocable to tenants)		Plus costs of the outside area	179,400 Euro
- Management costs	22,194 Euro	Subtotal	6,159,400 Euro
- Maintenance costs	31,125 Euro	Less safety margin	615,940 Euro
- Loss of rental income risk	29,592 Euro	Subtotal	5,543,460 Euro
Total operating expenses	82,911 Euro	Plus incidental building costs	886,954 Euro
In percent of gross income	11.2 percent	Value of the building	6,430,414 Euro
Operating expenses	15.0 percent	Land value	3,120,000 Euro
Stated operating expenses	110,970 Euro	<b>Depreciated replacement cost value</b>	<b>9,550,414 Euro</b>
Net annual income	628,830 Euro	<b>Depreciated replacement cost value (rounded)</b>	<b>9,550,000 Euro</b>
Capitalisation rate: 6.00 percent			
Expected return on land	187,200 Euro	Income value / depreciated replacement cost value - 1	6.83 percent
Net income of building	441,630 Euro	The depreciated replacement cost value is only 6.83 percent below the income value (which is less than 20 percent), therefore the lending value is based on the income value (the sustainability of the income generated by the property has not to be double-checked in this case).	
Income value of the building*	7,136,741 Euro		
Land value	3,120,000 Euro		
<b>Income value</b>	<b>10,256,741 Euro</b>	<b>Mortgage lending value (income properties)</b>	<b>10,250,000 Euro</b>
<b>Income value (rounded)</b>	<b>10,250,000 Euro</b>	<b>Value of the cover asset (lending limit 60 percent)</b>	<b>6,150,000 Euro</b>

Source: vdp, DZ BANK, \* capitalisation rate 6 percent and remaining useful life 60 years in this theoretical example

German pfandbrief legislation allows an exception for residential buildings like owner-occupied houses (limit for small mortgage loans, Kleindarlehensgrenze), whereby the law also allows a partial commercial use of the building. If the building is partly used commercially, the share of income from the commercial use may not exceed one third of the total gross income generated from the property if this exception is to be applied. In addition, the volume of the mortgage may not exceed 600,000 euros. If the amount of the land charge (Grundschuld) - taking into account any existing prior ranking mortgage or liens - is not exceeded, then banks may use a simplified procedure to determine the mortgage lending value. The BelWertV acknowledges the use of statistical and computer-aided procedures in the valuation of detached and semi-detached houses as well as owner-occupied flats as a valuation procedure.

According to the Pfandbrief Act, only real estate loans within the first-ranking 60 percent of the determined mortgage lending value of a property can be used as cover asset for mortgage pfandbriefe (realkredit). This limit applies regardless of whether the building is residential or commercial. Loans with an LTV of more than 60 percent may be included in the cover pool, but only the first-ranking portion (taking into account any prior ranking mortgages) up to the 60 percent limit is taken

**Relief for loans falling under the small loan limit**

**Uniform mortgage lending value limit of 60 percent**

into account for the cover calculation, since in the event of the pfandbrief bank's insolvency the pfandbrief creditors' preferential right is limited to these loan parts (soft LTV limit).

In addition to the above-mentioned requirements for the cover assets, there are also geographical restrictions. For example, the mortgages must be located in the European Economic Area, Australia, Great Britain, Japan, Canada, New Zealand, Switzerland, Singapore or the United States of America.

The Pfandbrief Act requires an insurance obligation against the risks existing according to the type and location of the building if loans in the cover pool are secured with these properties. After the insolvency of the pfandbrief bank, the insurance benefits the pfandbrief creditors.

### c) Ship pfandbriefe

Loan rights backed by ship mortgages qualify to serve as ordinary cover assets for ship pfandbriefe. The loans may only relate to ships or ships under construction which are recorded in a public register. The loan term may not extend beyond 20 years from launch. The regulator may permit exceptions in individual cases. Loans secured by foreign registered ships or ships under construction can only be included in the cover pool under certain conditions defined by the Pfandbrief Act. Ships and ships under construction have to be insured for at least one hundred and 10 percent of the loan's residual sum through the term of the loan.

The calculation of the lending value of ships and ships under construction is also subject to explicit rules, including the same 60 percent LTV ceiling for assets that applies to mortgage pfandbriefe. The lending value for ships and ships under construction must be determined by an independent and expert appraiser. The valuation must take account of the ship's permanent long-term characteristics as well as its age and possible uses. The valuation process must include an inspection of the ship. The calculation of the ship's lending value must have regard to the following four market values/prices:

- » The current market value is an estimate for the price that a ship might fetch in the normal course of business on the valuation date, when both buyer and seller are acting with the requisite prudence and without duress (i.e. no fire sale).
- » The average market value refers to the average market value fetched by comparable ships over the ten years preceding the year of valuation.
- » The new-build price is the construction price agreed with the yard plus reasonable standard add-on costs.
- » The purchase price is the contractually agreed price for acquiring the ship being valued.

The ship's lending value may not be higher than the current and/or average market value. If the average market value for the last ten years cannot be established, then additional safety discounts must be applied: either 15 percent (if the average relates to less than ten but more than three years) or 25 percent (if the average is based on three years or less). If neither the current nor the average market value can be determined, then another suitable method must be used, but in this case, the ship's lending value must not exceed 75 percent of the new-build price or purchase price. The ship's lending value should reflect its long-term value.

### Geographical restrictions

### Building insurance is compulsory

### Rights in ships and ships under construction

### 60 percent LTV and duty to insure

### Current market value

### Average market value

### New-build price

### Purchase price

### Ship's lending value based on lower of cost or market principle

### **Aircraft pfandbriefe**

Loans secured by a right in rem in aircraft (aircraft mortgage) qualify as ordinary cover assets for aircraft pfandbriefe. Only aircraft recorded in a public register are eligible. The registered lien or foreign aircraft mortgage must also cover the engines, which account for a large proportion of the value of an aircraft. As we saw with ship mortgages, the duration of the loan on an aircraft may not exceed 20 years. The regulatory authority can allow exceptions in individual cases. Loans secured by foreign registered aircraft may also be included in the cover pool under certain conditions defined in the Pfandbrief Act. The aircraft must be insured throughout the term of the loan for at least one hundred and 10 percent of the respective loan outstanding.

As in the case of property and ship loans, the aircraft loan may not exceed the first 60 percent of the value of the aircraft (aircraft lending value) in order to qualify as cover asset. The underlying lending value of the collateral for aircraft pfandbriefe is also subject to explicit rules defined in a regulation, and these are similar to the provisions governing ships. The aircraft lending value must be determined by an independent expert appraiser. The valuation must focus on the aircraft's long-term features. In contrast to the methodology for identifying the lending values of ships, the process for aircraft essentially focuses on the market price and the average market price in the last ten years along with the plane's value given well-balanced market conditions and in relation to the aircraft's average state (the aircraft's estimated value factoring in its maintenance condition). The lending value shall not exceed any of these three figures. If the average market price of the last ten years is not available, then the value based on the aircraft's average state is assumed to be the lending value, subject to a 10 percent markdown.

### **e) Other or further cover assets (for all pfandbrief types)**

In order to give the pfandbrief banks more flexibility in managing the cover pools, the PfandBG allows the inclusion of further cover assets in the cover register of pfandbriefe to a limited extent. The claims and receivables eligible for further cover assets are the same for all four pfandbrief types. In principle, the following receivables, among others, are suitable as further cover assets:

- » Claims on the ECB and other central banks from the EU or the EEA as well as claims on eligible credit institutions
- » For mortgage, ship and aircraft pfandbriefe: claims that would qualify as ordinary cover assets for public sector pfandbriefe
- » Derivatives that hedge the changes in the value of the cover pool against interest rate and currency risks

The use of derivatives in cover pool is restricted by the PfandBG. Based on a present value calculation, the share of all payment obligations from derivatives in cover pool in relation to the total amount of pfandbriefe outstanding plus the payment obligations from these derivatives may not exceed 12 percent. This 12 percent limit does not include derivatives used to hedge currency risks. For all derivatives allocated to the cover pool, special requirements apply to the underlying master agreements. Among other things, the insolvency of the pfandbrief bank must not trigger an early termination of the derivatives.

### **Aircraft mortgages which extend to the engines**

### **Independent expert must appraise the aircraft's value**

### **Other cover assets in addition to ordinary cover assets**

### **Due from central banks and credit institutions ...**

### **... and debtors from the public sector**

### **Derivatives**

### **Limitation for the present value of payment obligations from derivatives in cover pool**

Overall, the share of claims on credit institutions as further cover assets is graded according to credit quality (see the figure below). The PfandBG allows a share of further cover assets for mortgage, ship and aircraft pfandbriefe up to a maximum of 20 percent of the outstanding volume of pfandbriefe, with the share of claims against credit institutions limited to a maximum of 15 percent. In addition, the share of claims against other institutions from the same group as the pfandbrief bank is limited to a maximum of 2 percent. Should the pfandbrief bank enter more further cover assets into its cover register, no pfandbriefe may be issued against these assets. In the case of public sector pfandbriefe, the share of further cover assets is generally limited to 15 percent of the volume of public sector pfandbriefe outstanding.

### Proportion of other cover assets regulated by law

#### OTHER COVER ASSETS ACCORDING TO THE PFANDBRIEF ACT (OVERVIEW)

##### 1) Up to 8 percent of the relevant pfandbriefe outstanding

- Claims arising from the amounts to be paid to the pfandbrief bank in the event of an early termination of the master agreements for derivatives (with regard to the banks permitted by BaFin on the basis of a general ruling)

##### 2) Up to 10 percent of the relevant pfandbriefe outstanding, taking into account all assets mentioned under 1)

- Claims against credit institutions (credit quality step 2)
- Claims arising from the amounts to be paid to the pfandbrief bank in the event of early termination of the master agreement for derivatives (with regard to counterparties in credit quality step 2)

##### 3) Up to 15 percent of the relevant pfandbriefe outstanding, taking into account all assets mentioned under 2)

- Claims against the European Central Bank, central banks of the European Union or the European Economic Area and credit institution (credit quality step 1)
- Claims arising from the amounts to be paid to the pfandbrief bank in the event of early termination of the master agreement for derivatives (with regard to counterparties in credit quality step 1)

Source: Pfandbrief Act, DZ BANK

#### Requirements for the cover calculation

##### What are the requirements for the cover calculation and overcollateralisation?

The PfandBG provides for nominal overcollateralisation of the pfandbriefe in addition to the overcollateralisation based on a stressed present value calculation, which must also take into account liabilities from derivatives in cover where relevant. The cover calculation based on the present values of the pfandbriefe is subject to BaFin's supervisory requirements. According to BaFin, the pfandbrief bank must ensure that the pfandbriefe are sufficiently secured by cover assets on a net present value basis, also in stress scenarios. The issuer must ensure an overcollateralisation of at least 2 percent on a stressed risk net present values basis. The overcollateralisation based on the net present value calculation aims to cover the administration cost for the cover pool and the respective cover assets must therefore be suitable for covering the minimum liquidity ratio (LCR-eligible assets). In addition, the cover assets which are used to meet the requirements stemming from the stressed net present value calculation may not be taken into account within the cover calculation on a nominal basis. This de facto increases the nominal overcollateralisation ratio. The nominal value of the minimum overcollateralisation for mortgage pfandbriefe and public sector pfandbriefe is 2 percent. For ship and aircraft pfandbriefe, the legislator has provided for 5 percent.

**Cover at nominal and cash value with a minimum surplus cover of 2 percent**

**INTERACTION OF PRESENT VALUE AND NOMINAL VALUE OVERCOLLATERALISATION**

**EXAMPLE FOR A MORTGAGE PFANDBRIEF: THE CASH FLOWS (LEFT-HAND TABLE) ARE USED TO CALCULATE THE VALUES FOR THE NET PRESENT VALUE CALCULATION, WHICH IN TURN IS USED TO CALCULATE THE MINIMUM FOR THE NOMINAL VALUE OF THE COVER POOL**

	Cover pool cash flows	Pfandbrief cash flows		In Euro	In percent
Year 1	2	-2	<b>Net present value calculation</b>		
Year 2	7	-5	Overcollateralisation (net present value)	9.6	11.2 percent
Year 3	8	-6	Minimum overcollateralisation (2 percent)	1.7	2.0 percent
Year 4	5	-4		<b>In Euro</b>	<b>In percent</b>
Year 5	68	-66	<b>Calculation of nominal overcollateralisation</b>		
Year 6	7	-6	Pfandbrief, volume outstanding	80.0	--
Year 7	8	-7	+ minimum nominal overcollateralisation	1.6	2.0 percent*
Year 8	5	-3	+ minimum net present value overcollateralisation	1.7	2.0 percent
<b>Present value (with 2 percent market yield)</b>	<b>95.3</b>	<b>-85.7</b>	<b>Minimum value of the cover pool on a nominal basis</b>	<b>83.3</b>	<b>4.1 percent**</b>

Source: DZ BANK, \* for mortgage pfandbriefe or public sector pfandbriefe (in the case of ship or aircraft pfandbriefe, the minimum overcollateralisation on a nominal basis would be 5 percent, \*\* minimum nominal overcollateralisation taking into account the minimum overcollateralisation on a net present value and a nominal basis

If risks arise for the recoverability of the cover pool, BaFin can impose a higher individual overcollateralisation requirement on the pfandbrief bank. With this regulation, the supervisory authority can counteract an imminent deterioration of the cover pool if necessary. The provision can have the same effect as an issue ban for a pfandbrief bank. However, in our view, compared with an actual issue ban, the BaFin's power to set a specific overcollateralisation level provides better protection for the interests of pfandbrief creditors. In addition, the Pfandbrief Act makes it clear that pfandbrief creditors shall have a preferential claims over any assets over and above the statutory overcollateralisation or overcollateralisation required by BaFin in the event of the insolvency of the pfandbrief bank.

**The total overcollateralisation is available to the pfandbrief creditors**

**COMPARISON OF COVERAGE REQUIREMENTS**

	Minimum overcollateralisation
<b>Germany (nominal and stressed present value)</b>	
- Mortgage pfandbriefe, public sector pfandbriefe	2 percent
- Aircraft pfandbriefe, Ship pfandbriefe	5 percent
<b>European covered bond directive (CBD)</b>	0 percent*
<b>European capital requirements regulation for banks (CRR)</b>	5 percent**

Source: DZ BANK, \* the CBD requires that the costs for the liquidation of the cover pool (after the insolvency of the issuer) are taken into account in the cover calculation, \*\* under certain conditions, an overcollateralisation of 2 percent is also sufficient in exceptional cases according to Article 129 CRR

BaFin has defined stress tests in its net present value regulation (Barwertverordnung) that provide for a shift in the relevant interest rate curves and, if relevant, an appreciation and depreciation of foreign currencies. The overcollateralisation of at least 2 percent must also be provided in these risk and stress scenarios.

**Overcollateralisation in stress scenarios**

**Does the issuer have to keep a cover register?**

Yes. All assets serving as cover assets for a bank's pfandbriefe must be entered in a cover register kept separately for every pfandbrief type. This enables the unambiguous identification of the respective cover pool. Details on the form and the necessary contents of the cover register as well as the entries to be made will be precisely determined by a separate legal ordinance.

**Separate cover register for each Pfandbrief type**



**Is there an independent monitor of the cover pool?**

Yes. A cover pool monitor (Treuhand) and at least one deputy cover pool monitor shall be appointed at each pfandbrief bank to check that the cover register is properly kept and that the pfandbriefe are sufficiently secured in accordance with the pfandbrief legislation. The appointment shall be made by BaFin after hearing the pfandbrief bank. The cover pool monitor shall independently monitor compliance with the statutory and supervisory provisions regarding the cover requirements for the pfandbriefe. The pfandbrief bank may only issue new pfandbriefe or take out assets from the cover pool with the approval of the cover pool monitor.

**An independent monitor continuously checks compliance with the legal requirements**

In order for the cover pool monitor to be able to fulfil his duties, he may at any time request to inspect the bank's pfandbrief-related documents and request information on its outstanding pfandbriefe and the values entered in the cover register. The Pfandbrief Act also stipulates that both the cover pool monitor and his deputies must have the relevant expertise and experience necessary to perform their duties.

**Extensive information rights**

**Transparency requirements****Do issuers have to comply with certain transparency requirements?**

Yes. Every pfandbrief bank is obliged to publish the statutory minimum catalogue of information on the pfandbriefe outstanding and the cover assets in a publicly accessible form once a quarter. The PfandBVG requires, for example, that for each pfandbrief type the pfandbrief bank must disclose the total amount of the pfandbriefe outstanding as well as the corresponding volume of the cover pool with respect of the nominal and present value as well as also the risk present value for stressed scenarios. In the case of the risk present value, only the result from the stress scenario leading to the lowest overcollateralisation has to be stated. In addition, the maturity structure (based on the time to the re-set of the interest rates) of the pfandbriefe as well as the cover assets must be listed and broken down according to specified maturity bands. The cover assets and pfandbriefe with a fixed-interest period of up to 24 months are shown in four sections of six months each. This is followed by three maturity bands of one year each up to the fixed-interest period of a maximum of five years. The last two maturity bands are five to ten years and more than ten years. In addition, the potential impact of a possible maturity extension by the cover pool administrator must also be taken into account when presenting the maturity profile of the pfandbriefe. In addition, in order to give investors a sense of any interest rate or currency mismatches that may exist in the bank's pfandbrief business, the transparency rules include the distribution of the cover pool and the pfandbriefe outstanding according to fixed and variable interest rates. In addition, the net present value of open currency positions between cover assets and pfandbriefe must be published (per foreign currency) and the net present value of derivatives in the cover pools must be shown.

**Legal standard for mandatory reports**

For each pfandbrief type, the total amount of non-performing loans (more than 90 days in arrears) must be stated separately. In addition, the geographical distribution of the cover pool by country must also be published. In this context, information must be provided separately for ordinary and further cover assets.

**Information on non-performing loans and geographical distribution**

Pfandbrief bank must publish a list of outstanding pfandbriefe with international identification numbers such as the ISIN. Furthermore, the amount of the liquidity reserve in the cover pool resulting from the 180-day liquidity calculation must also be stated.

**List of ISIN and the amount of the liquidity reserve**

#### GENERAL TRANSPARENCY REQUIREMENTS FOR ALL PFANDBRIEF TYPES

- » Information on the cover calculation on a nominal, a net present value and a stressed net present value calculation including the statutory, contractual and voluntary overcollateralisation
- » Maturity structure of the cover assets and the pfandbriefe outstanding as well as the conditions for a maturity extension and its effects on the maturity structure of the pfandbriefe outstanding
- » Information on the liquidity risk in the form of the largest liquidity gap within the next 180 days (as a cumulative amount of daily cash flows) as well as the day on which this liquidity gap occurs
- » List of pfandbriefe outstanding with their international securities identification number (ISIN)
- » Information on loans in arrears in the cover pool as well as the proportion of cover assets that are in default in accordance with article 178 CRR.
- » Distribution of the cover pool and the pfandbriefe outstanding by fixed and variable interest rates as well as the net present value of open currency positions (separately for each foreign currency) and the current net present value of derivatives in the cover pool.

The extended transparency requirements, which came through the implementation of the CBD into the German law, had to be met for the first time in the third quarter of 2022.

Source: Pfandbrief Act, DZ BANK

The distribution of the real estate loans in the cover pool for mortgage pfandbriefe must be made according to property type and according to the volume of the loan receivables in specified volume classes. For the loans in the cover pool, the weighted average of the term of the loans that has elapsed since the loan was granted (i.e. loan seasoning) must also be published. This figure is not broken down into owner-occupied residential mortgages and commercial property financing, but is reported for all property financing as a whole. In general the seasoning is an interesting indicator especially for owner-occupied home financing. The pfandbrief banks are also obliged to regularly report the average loan-to-value ratio for the cover pool of their mortgage pfandbriefe. Due to the calculation rules for the loan-to-value ratio, this will never exceed the statutory maximum LTV-limit of 60 percent. The PfandBG thus deviates from international standards in this respect. Nevertheless, the ratio remains an interesting piece of information for investors.

In the case of public sector pfandbriefe, a breakdown of municipal and state loans in the cover pool by borrower type must be disclosed in line with the structure level of the regional and municipal authority. Issuers must also disclose the proportion of export finance credits with a public guarantee in the cover pool. The specific state level (i.e. sovereign, region or municipality) guaranteeing the export financing is not explicitly disclosed. All the claims within the cover pool must be split by size, although the breakdown of the groups of exposure sizes is different from what it is in the case of mortgage pfandbriefe.

#### Special information requirements on mortgage pfandbriefe

#### Proportion of public sector guaranteed export finance credits must be disclosed

**SPECIFIC TRANSPARENCY REQUIREMENTS FOR EACH PFANDBRIEF TYPE**

- » **Mortgage pfandbriefe:** Information on property types, geographical distribution of cover assets (by country), average loan seasoning, average loan-to-value (LTV) and on the distribution of cover assets by loan volume, as well as information on other cover assets.
- » **Public sector pfandbriefe:** distribution of cover assets by borrower type (state, region, municipality, others), distribution by direct claims against and claims guaranteed by sovereigns, local governments and other public sector entities and information on export financing, distribution of cover assets by loan volume and information on other cover assets.
- » **Ship pfandbriefe:** Distribution of financing by inland and seagoing vessels, geographical distribution of cover assets and information on other cover assets.
- » **Aircraft pfandbriefe:** Geographical distribution of cover assets and information on other cover assets

Source: Pfandbrief Act, DZ BANK

The statutory requirements in the context of transparency rules for aircraft and ship pfandbriefe are less detailed than they are in the case of mortgage pfandbriefe. In the case of ship pfandbriefe, issuers are merely required to disclose whether the ships used as collateral for the mortgage are sea-going or inland waterway vessels. In the case of aircraft pfandbriefe, there is not even a roughly comparable breakdown of the cover assets by type of aircraft. The pfandbrief bank merely has to indicate the share of aircraft mortgages in relation to the cover assets overall. In the case of aircraft and ship pfandbriefe, claims also have to be broken down into the prescribed categories of the volume of the exposures, whereby other categories apply than in the case of mortgage and public sector pfandbriefe.

**Few details in the case of aircraft and ship pfandbriefe**

**VOLUNTARY SUPPLEMENTING REPORTS ON TOP OF THE STATUTORY TRANSPARENCY REQUIREMENTS****Minimum transparency requirements according to the Pfandbrief Act**

- Ensures the minimum information requirements set out in the CBD

**Voluntary cover pool reports, for example in the HTT-format**

- A high number of German pfandbrief issuers publish cover pool reports according to international standards on top of the minimum transparency requirements of the PfandBG

Source: DZ BANK, CBD= European covered bond directive, HTT = harmonised transparency template

For years now, the vdp has provided the compulsory disclosures of its member institutions on their pfandbrief programmes in standardised form on its website. Reports can now be found on the vdp's website which conform with an international standard of the harmonised transparency template (HTT) for over half the vdp member banks. The covered bond label initiated by the European Covered Bond Council (ECBC) requests regular reporting within the HTT-format. By far not all German pfandbrief bank carry the covered bond label. But the majority of vdp pfandbrief banks voluntary provide quarterly reports in HTT-format on top of their statutory transparency requirements, even without a covered bond label.

**Information can be downloaded centrally from the websites of banking associations**

#### **PFANDBRIEF REPORTING ORDINANCE CONTAINS DETAILS REGARDING OBLIGATORY REPORTS FOR BAFIN**

In addition to the publication obligations pursuant to §28 of the Pfandbrief Act, pfandbrief banks must regularly send the German Financial Supervisory Authority (BaFin) data on their cover assets. The scope of these reporting obligations is governed by the reporting ordinance published in October 2022. The reporting ordinance provides for various spreadsheets with several thousand data fields, of which a pfandbrief bank only has to provide the information relevant to it of course. For a programme of mortgage pfandbriefe without derivatives, but with foreign business, up to 1,767 data fields might be relevant. In addition to the sheer volume of data, the 2022 reporting ordinance has also expanded the level of detail of the information. In the case of mortgage pfandbriefe, for example, the data on mixed-use properties may not be assigned to the category of their predominant type of use, as is the case with the publication obligations under §28 of the Pfandbrief Act. Within the scope of the reports to BaFin, the information must be provided separately by type of use according to the gross income of the building. This not only involves the distinction of residential and commercial buildings, but also within the commercial category a differentiation into, for example, hotel and office, if the property is used accordingly.

Source: vdp, DZ BANK

### **Rules for the insolvency of the issuer and existing risks**

#### **What happens in the event of the issuer's insolvency?**

The cover pools of a pfandbrief bank become pfandbrief banks with limited operations after the insolvency of the issuer. The original issuer remains the legal owner of the cover pool despite its insolvency. After the pfandbrief bank's insolvency, the cover pool is no longer represented by its board of directors but by a cover pool administrator (Sachwalter). The competent court appoints up to three natural persons as cover pool administrator at the request of BaFin. The cover pool administrator may also be appointed by the competent court prior to the pfandbrief bank's insolvency, if BaFin deems this necessary. The cover pool administrator shall continue the pfandbrief business independently of the pfandbrief bank's insolvency estate. The pfandbriefe shall not automatically become due and payable upon the commencement of insolvency proceedings against the pfandbrief bank.

The number of pfandbrief banks with limited operations depends on the number of cover pools of the issuer. If, for example, a pfandbrief bank keeps a cover register for public sector pfandbriefe and one for mortgage pfandbriefe, one "pfandbrief bank with limited operations" is created for each cover pool after the insolvency of the issuer, i.e. in the example a total of two. The cover pool administrator may appoint an advisory board (beirat) with up to five members. This body of experts is designed to help and support to the cover pool administrator by advising him on the possibly complicated issues involved in managing the cover pool. The Pfandbrief Act makes it clear that the cover pool administrator and the pfandbrief bank's insolvency administrator are considered equal partners. The pfandbrief bank's insolvency administrator may not challenge acts of the cover pool administrator that the latter performs within the scope of his activities and as part of his or her obligations and duties. The explanatory memorandum to the PfandBG states that this also applies if the insolvent pfandbrief bank's compensation claim against the cover pool is reduced as a result.

The cover pool administrator carries out the legal transactions necessary for the wind-down of the cover pool. A more technical question concerns the operational

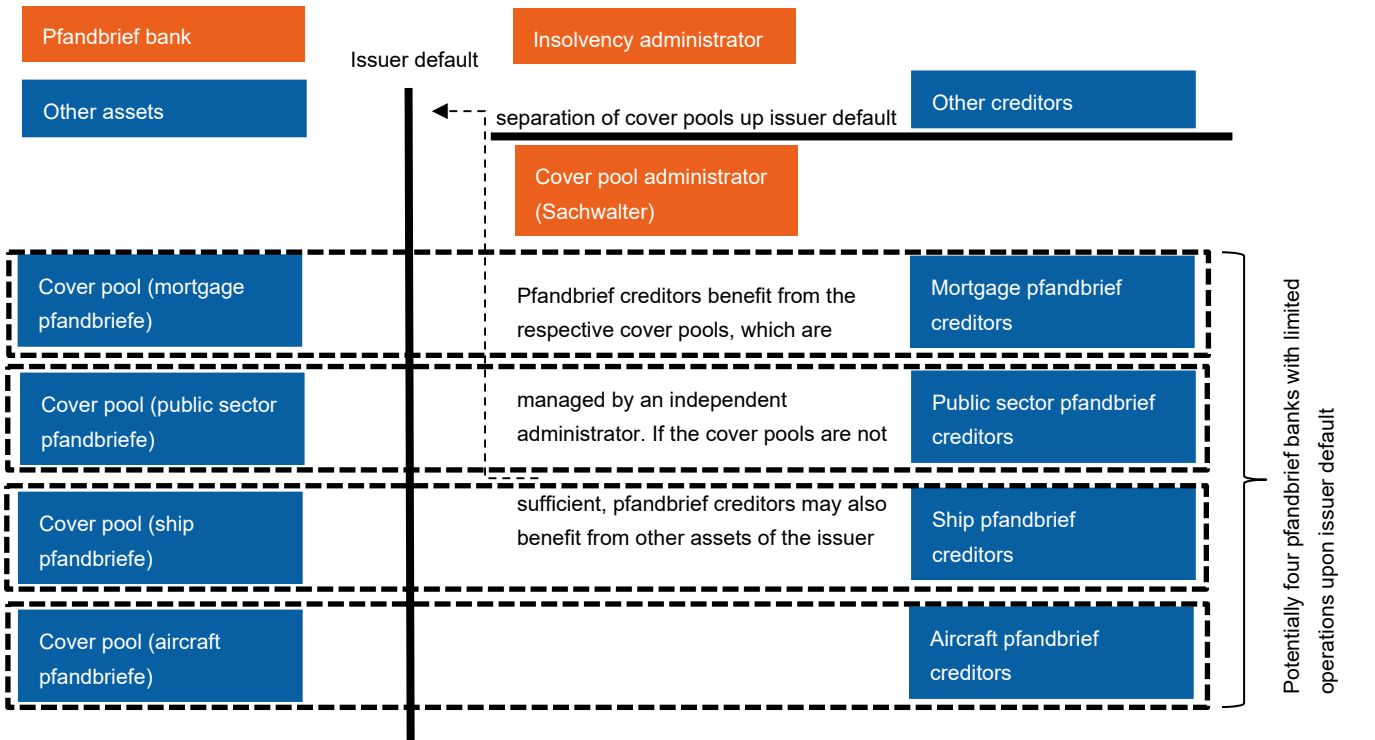
**Cover pool administrator continues the pfandbrief business**

**Cover pool administrator can set up advisory board**

**Operational risks**

risks after the pfandbrief bank's insolvency. The Pfandbrief Act makes it clear that the cover pool administrator is entitled to use the pfandbrief bank's staff and operational infrastructure to fulfil all his or her duties. The costs actually incurred are born by the cover pools of the pfandbriefe. In our view the regulations on the cover pool administrator in the Pfandbrief Act are aiming at the operational risks and are attempting to make the management of the cover pools as efficient as possible after the insolvency of the pfandbrief bank.

**PFANDBRIEF CREDITORS' PRIORITY IN BANKRUPTCY**



Source: vdp, DZ BANK

If a pfandbrief bank is threatened to become insolvent, BaFin is allowed to appoint a special representative who can later assume the role of a cover pool administrator if necessary. The special representative has information rights only, which are intended to prepare him for the possible administration of the pfandbrief bank with limited operations. This gives the acting persons the necessary time to familiarise themselves with the task of running the cover pool.

**Appointment of a special representative**

If the cover pool administrator determines that the value of the cover assets are no longer sufficient to satisfy all pfandbrief creditors' claims, a separate insolvency proceedings must be opened over the cover pool. In this case, the pfandbriefe would accelerate (i.e. become due and payable) and the cover pool would be liquidated. The proceeds from this would be distributed to the pfandbrief creditors in equal shares (pari passu). The PfandBG also creates the possibility that an illiquid or over-indebted pfandbrief bank with limited operations can be continued by the cover pool administrator within the framework of self-administration. In this case, the insolvency court may – upon BaFin's request – order the cover pool's self-administration as an alternative to opening insolvency proceedings over its assets, if this is in the interest of the creditors. Should the creditors' committee oppose this, the competent court would decide on an ordered self-administration. The liquidation of the assets of the cover pool under self-administration may be more protracted than normal insolvency

**Self-administration of the cover pool is a lengthy procedure**

proceedings, but higher recovery rates may be achievable. The flexibility created by this further option in the event that a cover pool needs to be liquidated is likely to be helpful in avoiding a distress sale due to a forced liquidation of the assets.

**Are covered bonds bail-in able?**

No, German pfandbrief creditors do not participate in any restructuring proceedings of the issuer. However, it is theoretically conceivable that a remaining (unsecured) claim of the pfandbrief creditors due to an insufficient amount of cover assets could be affected by a bail-in. However, this would mean that the pfandbrief bank had not complied with the statutory overcollateralisation (not to mention requirement to have enough cover assets for all its pfandbriefe).

**A bail-in is in theory possible, if minimum coverage requirement were not met**

**What is the role of the supervisory authority?**

The responsibility for the court decisions on the appointment of the cover pool administrator is governed by the general German Insolvency Code. When appointing a cover pool administrator - if necessary even before the pfandbrief bank becomes insolvent - BaFin may propose a candidate. However, the cover pool administrator is always appointed by the competent court, regardless of whether the pfandbrief bank is already insolvent or not.

**Clear responsibilities**

**Is there a special ranking of creditors?**

After the insolvency of the issuer, the pfandbrief creditors benefit from a preferential right of satisfaction with respect to the cover assets. Only the administration costs of the programme would rank ahead of the pfandbrief creditors' claims. Among themselves, the pfandbrief creditors share the same rank with the claims of the derivative counterparties.

**Pfandbrief creditors share the same rank**

**RANKING OF CLAIMS AGAINST THE COVER POOL AFTER INSOLVENCY OF THE ISSUER**



Source: DZ BANK

**What happens after the cover pool has been separated?**

The cover pool administrator may transfer the entire cover pool or parts thereof together with the pfandbriefe outstanding to another solvent pfandbrief bank. If there is no suitable bank, the cover pools will be wind down in an orderly manner by the cover pool administrator. Only when all claims of the pfandbrief creditors have been satisfied in full can any remaining cover assets be transferred to the pfandbrief bank's insolvency estate and be used for the benefit of the other creditors of the insolvency estate of the bank. The cover pool administrator may also take out bridge loans or sell cover assets in order to meet the payment obligations arising from the pfandbriefe on time.

**Transfer of the cover pool together with the pfandbriefe outstanding to a third-party pfandbrief bank**

In the context of insolvency, there are a variety of scenarios through which the recoverability of the cover pool could be threatened. In this context, for example, the following legal issues could arise, which are, however, taken into account in the PfandBG:

**Further questions in connection with the pfandbrief bank's insolvency**

» Moody's considers it unlikely that a payment moratorium will be imposed on the pfandbriefe after the insolvency proceedings against the issuer has begun. According to Moody's, operational risks could arise if, before the cover pool is separated, the pfandbrief bank is placed under a payment moratorium. In the event that insolvency proceedings are also opened over the cover pool following the insolvency of the issuer, the agency does not rule out a payment moratorium for the pfandbriefe.

#### **Payment moratorium**

» The PfandBG ensures that the pfandbrief creditors have a priority claim to the entire cover pool (including the entire overcollateralisation). The pfandbrief bank's insolvency administrator can, however, attempt to reclaim parts of the overcollateralisation. To do so, he must demonstrate to the competent court that these assets will obviously not be necessary to secure the pfandbrief creditors' claims. The hurdles for a possible transfer of cover assets to the pfandbrief bank's insolvency estate are therefore considered quite high. Assets in the cover pool that do not meet the requirements of the Pfandbrief Act are not available to the pfandbrief creditors on a priority basis. This includes, for example, the parts of mortgage loans that exceed the lending value limit of 60 percent. These claims belong to the insolvency estate of the pfandbrief bank.

#### **Claw-back risk**

» Pfandbrief bank customers who have both cash on deposit at the bank and a loan from the bank could try to offset opposing (or mutual) claims against each other after the issuer's insolvency. However, the Pfandbrief Act obviates this potential set-off risk to pfandbrief creditors if for example the pfandbrief bank's cover pool assets are to be netted off against for example (due) deposits held with the insolvent bank. Cover pool assets and liabilities (like pfandbriefe), which are falling due at the same time can, however, be set off.

#### **Set-off risks**

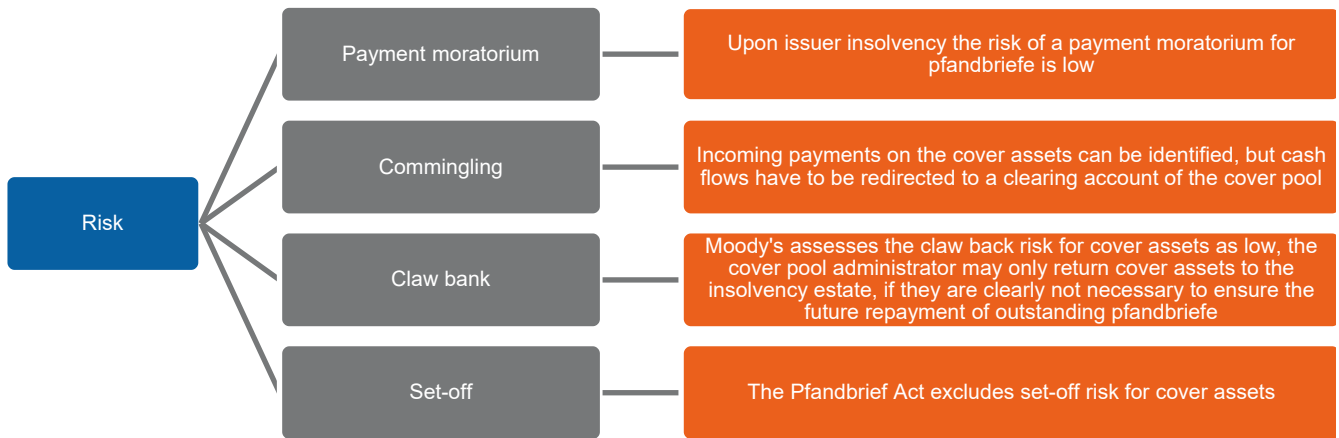
» It is unlikely to be the norm for pfandbrief banks that all their cover pool related cash flows will be accounted for separately and booked to a separate clearing account even before the insolvency of the issuer. For this reason, the rating agencies point out that there is a risk for the cover pools that, after the insolvency of the issuer, the cover pool administrator might not have direct access to all cash flows into the cover pool. In the worst-case scenario, it could become impossible to separate cash inflows from the bankrupt estate and they could therefore become entirely lost to the cover pool. We believe that this risk is mitigated by the fact that a cover pool administrator can be appointed even before the pfandbrief bank defaults. The administrator would then have the opportunity to initiate appropriate precautionary measures such as the prompt redirection of cash flows.

#### **Commingling of cash flows**

Even though the residual legal risks for pfandbrief creditors in the event of the insolvency of the issuer outlined here as examples cannot be excluded with absolute certainty, there are nevertheless regulations in the Pfandbrief Act which limit these risks and contribute to avoiding them at best. In our view, these are quality features of the legal framework of German pfandbriefe.

#### **Protection against residual legal risks**

**SUMMARY OF LEGAL RISKS AND THEIR MITIGANTS FOR GERMAN PFANDBRIEFE**



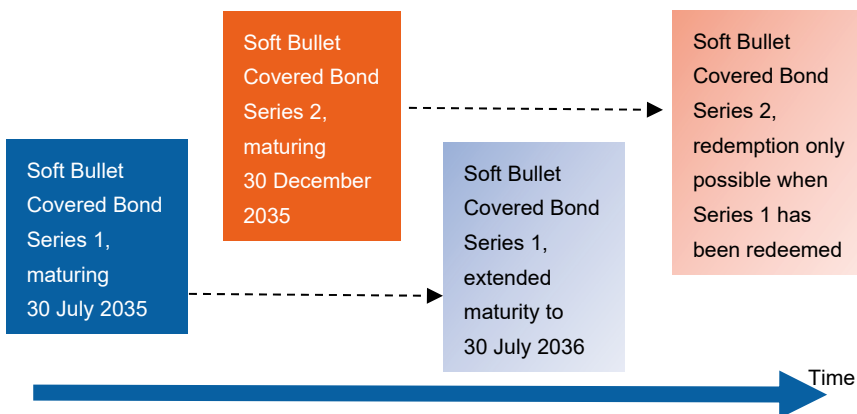
Source: Moody's, DZ BANK

**Are covered bonds repaid in the same order as originally planned after issuer insolvency?**

The pfandbriefe do not become automatically due and payable after the insolvency of the issuer. They are redeemed in the original order according to the expected maturity date. The cover pool administrator may extend the maturity of a pfandbrief by up to twelve months (soft bullet). However, the original redemption order must be maintained even if the term of a pfandbrief has been extended (so no overtaking, if the cover pool administrator uses the legal soft bullet). This means that, in our opinion, subsequent pfandbrief may only be repaid once the pfandbrief whose maturity has been extended has been redeemed (see figure below). Theoretically, the extension of a pfandbrief could therefore trigger a cascade of maturity extensions.

**No overtaking**

**POSSIBLE MATURITY EXTENSION MUST NOT CHANGE THE ORIGINAL REDEMPTION ORDER OF THE OUTSTANDING COVERED BONDS.**



Source: DZ BANK

In principle, German pfandbriefe face the problem of time subordination because - as is usual with covered bonds - the pfandbriefe are not automatically due and payable when the issuer becomes insolvent, but are redeemed in their original order. Later maturing pfandbriefe therefore bear the risk that the credit quality or liquidity of the

**As is usual with covered bonds, there is a time subordination**



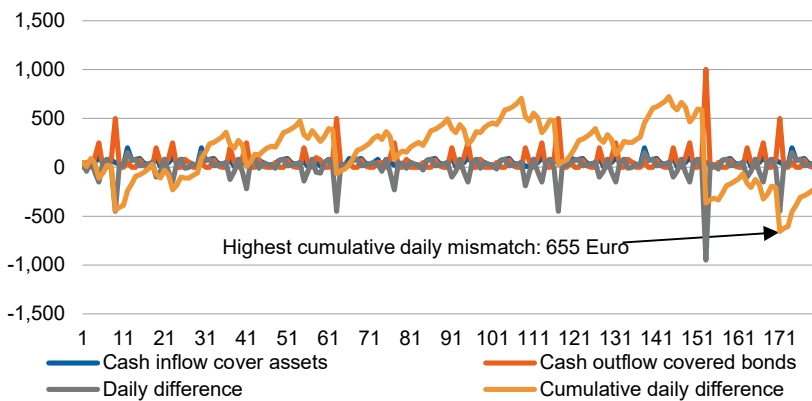
cover pool deteriorate over time. The German covered bond law limits this risk by allowing the cover pool to become insolvent if the cover pool becomes over-indebtedness or illiquid. In this situation, all claims against the cover pool would be called due and the realisation proceeds from the cover assets would be distributed to the creditors (after deduction of costs that rank senior to the covered bond holders) in equal shares.

**How is the liquidity of the cover pool ensured after the insolvency of the issuer?**

In order to ensure the liquidity of the cover pool immediately after an insolvency of the pfandbrief bank, the PfandBG requires that for the next 180 days the net payment obligations are covered by a sufficient liquidity reserve with the cover pool. For each day, the difference between due payments on the pfandbriefe outstanding and cash inflows into the cover pool has to be calculated. The largest cumulative liquidity requirement resulting from this calculation must be covered with liquid cover assets such as cash or government bonds. In the chart above you will find an example that illustrates the liquidity cover requirement of the PfandBG. In this example, the largest cumulative daily difference (the line marked with the arrow) occurs towards the end of the 180-day period and amounts to 655 euros. This amount would have to be available within the cover pool in the form of liquid assets. The provision to ensure liquidity for the first 180 days gives the cover pool administrator room to maneuver directly after the insolvency proceedings started for the pfandbrief bank.

**Payments on pfandbriefe for the next 180 days must be ensured**

**EXAMPLE CALCULATION OF 180 DAYS LIQUIDITY NEEDS**  
VERTICAL AXIS: EURO, HORIZONTAL AXIS: TIME IN DAYS



Source: DZ BANK

Liquidity risks may arise later (following the first 180 days upon issuer’s insolvency) on during the wind-down process of the cover pools if the maturities of the cover assets are longer than the maturities of the pfandbriefe outstanding. In order to strengthen the liquidity position of the cover pool, the cover pool administrator has the power to extend the maturity of the pfandbriefe outstanding by up to twelve months. The following points are particularly important in this regard:

**Rating analysts focus on liquidity gaps**

- » A solvent pfandbrief bank cannot unilaterally extend the maturity of its pfandbriefe. Only the court-appointed cover pool administrator is authorised to extend the repayment of pfandbriefe in clearly defined situations.

- » The cover pool administrator may extend the redemption including interest payments of a pfandbrief by up to four weeks without giving reasons if, for example, the situation is still unclear shortly after the appointment of the cover pool administrator. However, if the maturity shall be extended by several months, this may only be done if the cover pool does not have sufficient liquid assets to cover an upcoming pfandbrief redemption and the cover pool is not over-indebted and the cover pool administrator must be convinced that the redemption will take place after the extension period. The longer-term extension of the maturity does not apply to interest payments that must continue to be made during the extension period.
- » Should the term of a pfandbrief have to be extended at some point, a statutory ban on overtaking applies. This means that other pfandbriefe that mature after the original due date of the extended pfandbrief may only be repaid once the extended pfandbrief has been redeemed.
- » Interest is also paid on the pfandbriefe during the maturity extension. If the terms and conditions do not include any provisions about the coupon during the extension phase, then the original coupon payments continue to apply. However, issuers may make provisions for coupon payments during a possible extension phase in the bond terms and conditions.

In many European countries, maturity extensions may be taken into account when calculating the liquidity needs for the next 180 days. This means that no liquidity reserve needs to be built up within the cover pool for the repayment of these covered bonds because the liquidity risk within the covered bond programme is hedged by the application of the soft bullet. In the German PfandBG, however, no use was made of such provision, so that for the rolling window of 180 days a liquidity reserve has to be hold within the cover pool in addition to the soft bullet provisions. The liquidity reserve has there to cover the redemption value of all pfandbriefe within the 180 days window.

**Better safe than sorry: the influence of the soft bullet on the liquidity reserve**

In addition to the liquidity reserve and the maturity extension of the pfandbriefe, the cover pool administrator has further instruments to manage the liquidity of the cover pool. In our opinion, these include taking out bridge loans, selling cover assets and transferring cover assets together with pfandbriefe to another solvent pfandbrief bank. Ideally, the cover pool administrator would transfer the entire cover pool together with all associated pfandbriefe to a solvent pfandbrief bank, which would then take over the management of the cover assets and become responsible for the repayment of the pfandbriefe.

**Further instruments for liquidity management**

## Summary of the legal bases

### GERMAN PFANDBRIEF ACT COMPARED TO THE MINIMUM REQUIREMENTS OF THE CBD AND ARTICLE 129 CRR

	Germany	European Covered Bonds (Premium)
<b>Covered bond categories/ designation</b>	Hypothekendarpfandbriefe (mortgage pfandbriefe), Öffentliche Pfandbriefe (public sector pfandbriefe), Schiffspfandbriefe (ship pfandbriefe), Flugzeugpfandbriefe (aircraft pfandbriefe)	Mortgage covered bonds, public sector covered bonds, ship covered bonds
<b>Issuers</b>	Banks holding a pfandbrief license	Credit institutions as defined in point (1) of article 4 (1) CRR
<b>Transaction structure</b>	Integrated model	No specifications, pooling structures possible
<b>Special public supervision</b>	Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin)	Appointment of national authority(ies)

	Germany	European Covered Bonds (Premium)
<b>Independent, periodic cover pool monitoring</b>	✓ (Treuhand)	option (when a monitor is appointed, the CBD sets out the monitor's powers and duties)
<b>Main categories of permitted "regular" cover assets</b>	Depends on pfandbrief category: mortgage loans, government/municipal loans, ship finance or aircraft finance	Depending on the type of covered bond: mortgage loans, claims against public sector entities or ship financing (defined in article 129 CRR)
<b>Other permitted cover assets</b>	For all pfandbrief types: claims against ECB, central banks and other eligible financial institutions (up to 15 percent), derivatives; In addition for mortgage, ship and aircraft pfandbriefe: claims against public sector entities (up to 20 percent, taking into account the above-mentioned claims)	Cash receivables, HQLA cover assets (high-quality assets), loans to or guaranteed by public sector entities, derivatives
<b>Geographical restrictions on cover assets</b>	Public sector pfandbrief: European Economic Area (EEA), Switzerland, USA, Canada, Japan Mortgage pfandbrief: EEA, Australia, Canada, Japan, New Zealand Singapore, Switzerland, USA Aircraft pfandbrief, ship pfandbrief: no restrictions	Articles 6 and 7 CBD: basically EEA member countries, cover assets outside the EEA are eligible if they comply with the requirements of article 6 CBD
<b>Loan-to-value limits (LTV limit)</b>	Residential mortgages: 60 percent Commercial mortgages: 60 percent Ship mortgages: 60 percent Aircraft mortgages: 60 percent	Residential mortgages: 80 percent Commercial mortgages: 60 percent (as exception: 70 percent) Ship finance: 60 percent
<b>Basis for calculating LTV</b>	Mortgage lending value of the property, ship or aircraft	Market value of the property or ship
<b>Do covered bond creditors have a prior claim on the portions of loans in excess of the LTV limit?</b>	✗	Possible (depends on the regulation in the respective national covered bond law)
<b>Specific regulations on the cover pool</b>	Aggregate claims on a single credit institution may not exceed 2 percent of outstanding pfandbrief volume Present value of derivatives: maximum 12 percent Cap on pool share of non-EEA countries that do not guarantee priority of pfandbrief creditors upon issuer default: maximum 10 percent	In general, nominal value calculation, other cover calculations (e.g. at present value) could be required in addition
<b>Statutory minimum overcollateralisation</b>	2 percent based on a stressed present value basis and 2 percent based on a nominal value basis for public sector pfandbriefe and mortgage pfandbriefe and 5 percent for ship and aircraft pfandbriefe	5 percent (nominal), exceptional case 2 percent
<b>Do covered bond creditors also have a prior claim on cover assets in excess of the statutory minimum overcollateralisation?</b>	✓	Possible (depends on the regulation in the respective national covered bond law)
<b>Issuance limit for covered bonds?</b>	✗	✗ (but possible in principle, depends on the national covered bond legislation)
<b>Cover calculation/ matching and liquidity rules</b>	Present-value and nominal cover required, issuer must maintain a 180-days liquidity buffer	Nominal cover (basically), other cover principles are possible
<b>Stress test included in cover calculation rules?</b>	✓	✗ (not required by the CBD, but permissible)
<b>Special regulations governing covered bond repayment modalities</b>	✓ (the cover pool administrator (Sachwalter) may extend the maturity of the pfandbriefe by up to twelve months under certain circumstances)	✓ (if soft bullets are allowed, the covered bond law must, among other things, provide uniform framework conditions for the triggers for maturity extension)
<b>Independent administrator of the cover pool upon issuer's insolvency</b>	✓ (Cover pool administrator (Sachwalter), BaFin may appoint the Sachwalter even prior to issuer's insolvency, soft bullet by operation of the Pfandbrief Act)	Option to appoint a special administrator
<b>Treatment of covered bonds in insolvency event</b>	Servicing continues as per issue T&Cs	Servicing continues as per issue T&Cs
<b>Covered bonds are exempted from bail-in (i.e. covered bonds are not bail-in-able)*</b>	✓	✓

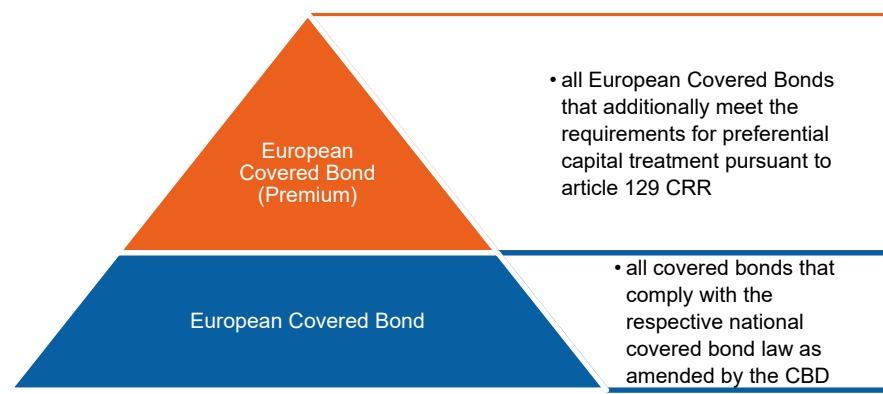
Source: European Covered Bond Council (ECBC), rating agencies, DZ BANK, ✓ = yes, ✗ = no, CBD = European Covered Bond Directive, CRR = European Capital Requirements Regulation, ECB = European Central Bank, EEA = European Economic Area, \* unsecured claims of covered bond creditors may possibly be affected by a bail-in.

## REGULATORY TREATMENT IN THE EUROPEAN ECONOMIC AREA

Covered bank bonds that meet the requirements of the CBD may be referred to as European Covered Bonds. This standard is also referred to in article 52(4) of the Directive on the coordination of laws, regulations and administrative provisions relating to undertakings for the collective investment in transferable securities (UCITS Directive). The famous original UCITS criteria, which can be summarised as (i) secured bank bond (ii) from an EEA country (iii) subject to special public supervision, now only apply to covered bonds issued before 8 July 2022. In the revised UCITS Directive, article 52 refers to covered bonds as defined in article 3 CBD. These are all covered bonds that fall under the national covered bond law of an EEA member state that complies with the requirements of the CBD. In addition, there are the stricter requirements for the status as European Covered Bond (Premium), for which, in addition to the requirements of the CBD, the requirements for a privilege risk weighting (article 129 CRR) must also be met. European supervisory law partly ties in with these quality criteria.

### European Covered Bonds and European Covered Bonds (Premium)

#### DEFINITION OF THE EUROPEAN LABEL FOR COVERED BONDS

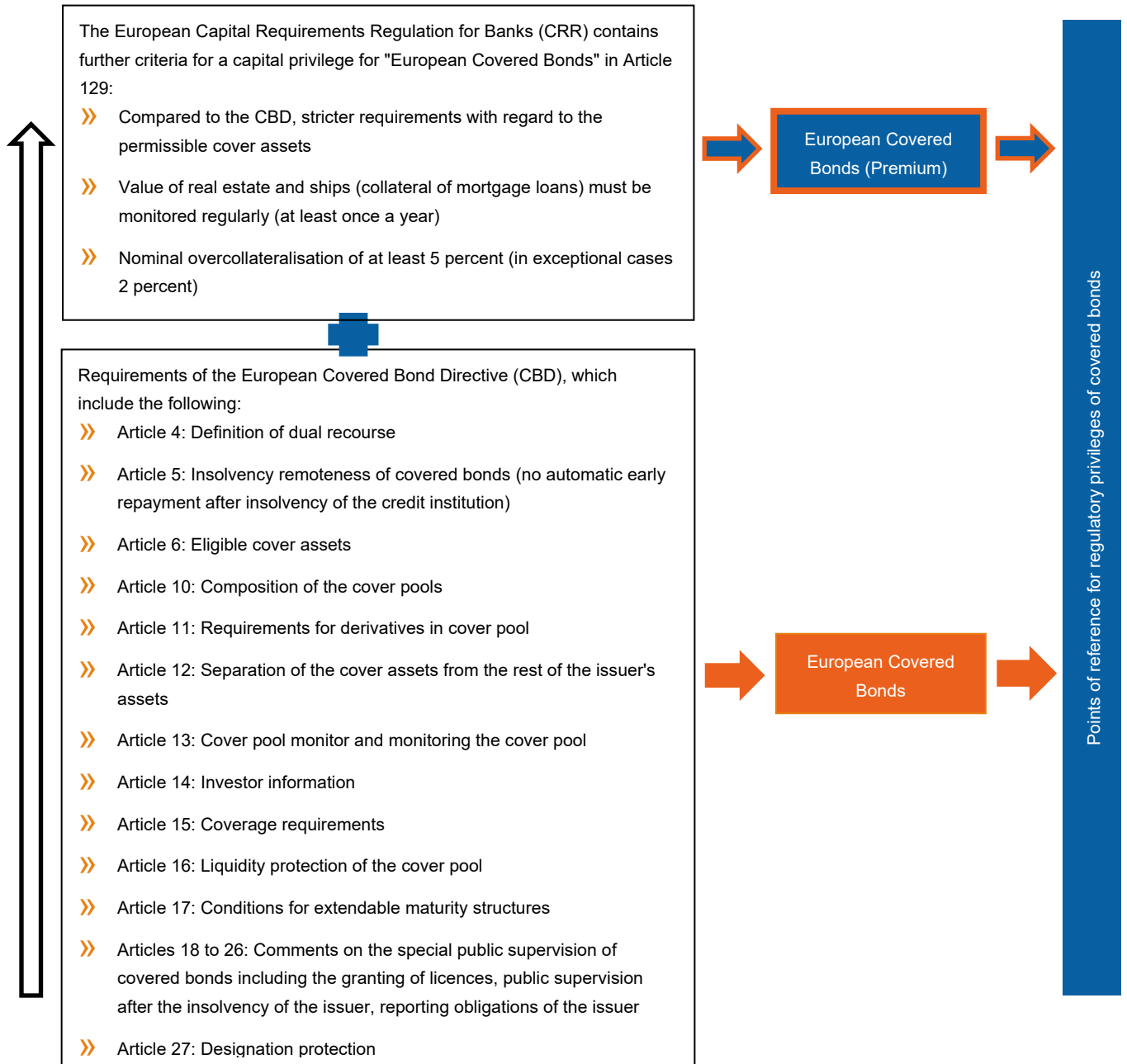


Source: European Covered Bond Directive (CBD), DZ BANK

Since July 2022, BaFin has published a list of credit institutions that have obtained a pfandbrief licence on its website. This list shows which pfandbriefe may call themselves European Covered Bond or European Covered Bond (Premium). This designation protection applies exclusively to pfandbriefe that have been issued since 8 July 2022. All pfandbriefe issued before 8 July 2022, on the other hand, may not be designated as such. However, BaFin clarifies that all old pfandbriefe also meet the CBD criteria and that in addition all mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe meet the stricter premium standards. This clarification is not unimportant. For covered bank bonds from the European Economic Area (EEA) issued by 8 July 2022, there are grandfathering rules. These mean that old bonds issued by banks from the EEA should retain their previous regulatory privileges. Pfandbrief investors may thus refer to BaFin's official list when it comes to proving qualification for supervisory privileges.

### Grandfathering rules for old bonds

**IMPORTANT BUILDING BLOCKS OF REGULATORY PRIVILEGES: EUROPEAN COVERED BOND STATUS AND PREMIUM STATUS**



Source: DZ BANK, numerous requirements of the CBD are optional that do not have to be implemented by the EU member states, examples include article 13 (cover pool monitor for monitoring the cover pool) and article 17 (conditions for extendable maturity structures)

**All investors: protection against bail-in**

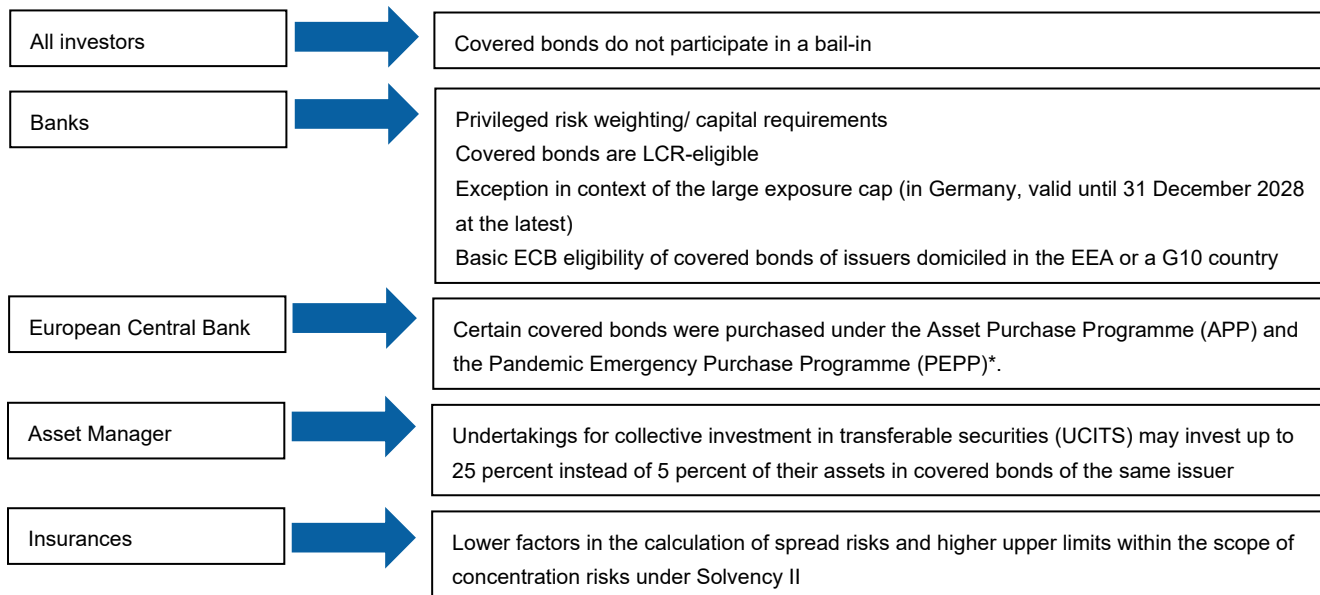
Regulatory privileges contribute to the attractiveness of covered bonds for investors. A very important feature of covered bonds is that they are exempt from bail-in, which benefits all investors. Covered bonds - as collateralised claims against banks - are not reduced in nominal value or converted into equity (bail-in) in the event of a bank restructuring or resolution. Theoretically, there is a risk that covered bond creditors can participate in a bail-in with the part of their claims that is not sufficiently collateralised. However, since by definition covered bonds must always be fully collateralised - and in the case of pfandbriefe even over-collateralised - we consider this risk for pfandbrief creditors to be very low. This case would only materialise, if the statutory cover requirements were not met.

**Covered bonds do not participate in a possible bail-in**

In addition to the protection against a bail-in, various investor groups also benefit from special regulatory privileges, which we outline in turn below. Not least because of the regulatory privileges, banks form the largest investor group within the covered bond market.

**Banks are largest investor group, probably also because of regulatory privileges**

**PRIVILEGES FOR COVERED BONDS: AN OVERVIEW BY INVESTOR GROUP**



Source: DZ BANK, \* Since July 2023, no more covered bonds have been purchased for the CBPP3 portfolio (as part of APP). Covered bond reinvestments under PEPP play only a minor role (bond purchases under PEPP end in December 2024 altogether).

**Banks: Do German pfandbriefe meet the requirements for privileged capital backing?**

In order for banks to be able to consider covered bonds with a privileged risk weighting within the framework of capital adequacy (credit risk standard approach), the covered bonds must fulfil the requirements of article 129 CRR (equivalent to the status of covered bonds as European Covered Bond (Premium)). Since the requirements of article 129 CRR are already taken into account in the Pfandbrief Act, mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe issued after 7 July 2022 on the basis of the German Pfandbrief Act always benefit from a lower (i.e. privileged) risk weighting and are also always considered to be a European Covered Bond (Premium). Aircraft pfandbriefe are no European Covered Bond (Premium) due to their cover assets and therefore cannot be assigned a reduced risk weight. Pfandbriefe issued before the aforementioned cut-off date are grandfathered regarding their regulatory privileges.

**Privileged risk weight, except for aircraft pfandbriefe**

The specific risk weight also depends on the rating of the covered bond. If no covered bond rating is available, the risk weight for the covered bond can also be derived from the risk weight for unsecured bonds of the issuer. The risk weight for the covered bond in the credit risk standardised approach would then be 10 percent, 20 percent, 50 percent or 100 percent if the corresponding risk weight for unsecured bonds of the bank is 20 percent, 50 percent, 100 percent or 150 percent, respectively.

**Rating also matters for the risk weight**

**DERIVATION OF RISK WEIGHTS IN THE CREDIT RISK STANDARD APPROACH FOR PFANDBRIEFE BASED ON EXTERNAL RATINGS**

Covered Bond Rating	Credit quality step	Risk weight
AAA to AA-	1	10 percent
A+ to A-	2	20 percent
BBB+ to BBB-	3	20 percent
BB+ to BB-	4	50 percent
B+ to B-	5	50 percent
CCC+ and below	6	100 percent

Source: Article 129 CRR, BaFin, DZ BANK

**Banks: Can German pfandbriefe be included as high-quality assets in the LCR calculation?**

Yes. The LCR Regulation provides that European Covered Bonds issued since 8 July 2022 may be used as High-Quality Liquid Assets (HQLA) in the context of the determination of the Liquidity Coverage Ratio (LCR) if, in addition, the requirements of article 129 paragraph 1 letter (c) and paragraph 1a CRR are also met. These CRR regulations deal with claims against other credit institutions that can be part of the cover pool. All German pfandbrief types fulfil these requirements. Pfandbriefe issued before the aforementioned cut-off date are grandfathered regarding their regulatory privileges.

**Basic requirements for LCR capability**

Whether and in which HQLA category (Level 1, Level 2A or Level 2B) the covered bonds can be classified depends not only on compliance with the general requirements mentioned above but also on individual characteristics of the bond or the covered bond programme, such as the rating, the issue volume or the existing overcollateralisation. An indication of the HQLA category of a covered bond with a covered bond label can be found in the issuer directory on the website of the Covered Bond Label. There, issuers (who are members of the Covered Bond Label) have the opportunity to enter the HQLA rating they consider appropriate for each bond.

**Bond characteristics have an impact on LCR eligibility**

There is one more regulation to consider. Aircraft pfandbriefe, mortgage pfandbriefe and ship pfandbriefe qualify in principle as HQLA as long as they are rated at least A3/ A-. Should the credit rating for aircraft pfandbriefe and ship pfandbriefe as well as mortgage pfandbriefe collateralised (in part) with commercial real estate financing fall below this rating threshold, a classification in HQLA category 2B is not possible anymore. Financing for aircraft, commercial real estate or ships is excluded for HQLA category 2B.

**LCR eligibility also depends on bond rating****POSSIBLE LCR RATINGS FOR PFANDBRIEFE**

HQLA level	1	2A	2B
Haircut	7 percent	15 percent	30 percent
Maximum share of the LCR portfolio	At most 70 percent	At most 40 percent	At most 15 percent
Covered Bond Rating (second best rating)	At least AA- (credit quality step 1)	At least A- (credit quality step 2)	No specifications
Bond volume	At least EUR 500m	At least EUR 250m	At least EUR 250m
Cover	At least 2 percent	At least 7 percent	At least 10 percent
Cover assets	CBD-compliant and special requirements for claims against banks	CBD-compliant and special requirements for claims against banks	Only claims against the public sector or home financing with a risk weight of 35 percent or less (according to the Credit Risk Standard Approach)

Source: LCR Regulation, DZ BANK, CBD = European covered bond directive, HQLA = High-Quality Liquid Assets, LCR = Liquidity Coverage Ratio

**Banks: Are German pfandbriefe suitable as collateral for refinancing transactions with the ECB?**

Yes, pfandbriefe or, more generally, a collateralised bank bond based on a special law (structured covered bonds are not ECB-eligible) are in principle suitable as collateral for refinancing operations with the ECB. In this context, the ECB refers to article 52(4) of the UCITS Directive, thereby requiring the standard to be a European Covered Bonds. In addition, the ECB expects a rating of at least Baa3/ BBB- and it applies varying haircuts depending on for example the rating or the maturity of the covered bond. Under certain conditions, banks can also deposit their own covered bonds with the central bank as collateral ("own-use"). Mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe meet these requirements.

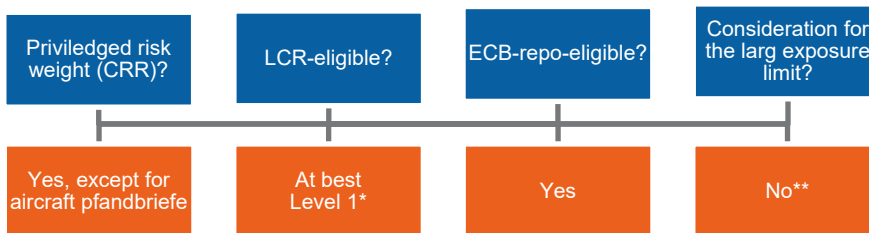
**Law-based covered bonds are ECB-eligible**

**Banks: How are covered bonds taken into account under the large exposure limits?**

The CRR lists limits for the amount of exposure to individual debtors (large exposure limits). When calculating the risk positions, the CRR grants the EU member states options. In Germany, this option was used in the Regulation Supplementing the Large Exposure Rules, among other things, to exclude covered bonds within the meaning of article 129 CRR from the limit. According to vdp, this option will continue to exist until 31 December 2028 at the latest.

**Pfandbriefe are excluded from large exposure limits until 2028**

**SUMMARY OF THE ADVANTAGES FOR BANKS THROUGH PRIVILEGED TREATMENT OF PFANDBRIEFE UNDER REGULATIONS**



Source: DZ BANK; \* Pfandbriefe collateralised with aircraft, commercial real estate or ship financing and with a rating lower than A3/ A- are not LCR-eligible \*\* Regulation in Germany, which, as things stand at present, applies until 31 December 2028 at the longest

**European Central Bank: Eligibility criteria for the third covered bond purchase programme?**

As is well known, the European Central Bank purchased covered bank bonds on a large scale as part of its third Covered Bond Purchase Programme (CBPP3). The CBPP3 portfolio reached its maximum in January 2023 at EUR 304.1bn. Only so-called "own-use covered bonds" qualified for CBPP3, i.e. covered bonds that the issuer itself could deposit with the ECB as collateral. In addition to the own-use criterion, which is linked to the fulfilment of the requirements from article 129 CRR, the covered bonds must also be in a bullet format (i.e. hard bullet or soft bullet). Covered bonds with a conditional pass-through (CPT) mechanism were not eligible for CBPP3.

**Own-Use Covered Bonds (bullet format) are CBPP3-eligible**

**Asset Manager: What are the regulatory advantages of covered bonds for asset managers?**

Asset managers or undertakings for collective investment in transferable securities (UCITS) are subject to many requirements, including limits on how much of the

**Higher limits for investments in covered bonds**



assets under management may be invested in securities of one issuer. For "European Covered Bonds", the UCITS Directive provides that EU Member States may raise in national law the limit set out in article 52 of the UCITS Directive on investments in the securities of one issuer from 5 percent to 25 percent.

#### ARTICLE 52 UCITS DIRECTIVE (EXTRACTS)

(1) A UCITS shall invest no more than a) 5 percent of its assets in transferable securities or money market instruments issued by the same body and ...

(4) Member States may raise the 5 percent limit referred to in the first subparagraph of paragraph 1 to 25 percent for certain bonds if the bonds were issued before 8 July 2022 and complied with the requirements of that paragraph as in force on the date of issue of the covered bond or if the bonds meet the definition of article 3(1) of Directive (EU) 2019/2162 of the European Parliament and of the Council on covered bonds.

Source: UCITS Directive

#### Insurance companies: Are there regulatory privileges for covered bonds under Solvency II?

Insurance companies are subject to the European Directive on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II). Among other things, it regulates the solvency capital requirements for insurance companies, which are influenced by numerous factors. European Covered Bonds - as long as they are rated at least Aa3/ AA- or better - have regulatory advantages (Solvency II refers to article 52 of the UCITS Directive). When calculating spread risks, covered bonds are subject to less stringent factors, so that covered bonds have lower capital requirements than, for example, corporate bonds. In addition, European covered bonds are subject to higher ceilings than corporate bonds within the limits of concentration risks for insurance companies. Both privileges contribute to the attractiveness of covered bank bonds for insurance companies in the context of the rather complicated calculations under Solvency II.

#### Regulatory privileges under Solvency II

#### PFANDBRIEFE REMAIN PRIVILEGED IN THE CARETAKERSHIP LAW

The Ordinance on the Requirements for Collateral and the Investment of Certain Assets (Verordnung über die Anforderungen an Sicherheiten und die Anlage bestimmter Vermögen or Sicherheitenverordnung, SiV) came into force on 1 January 2023. The SiV is related to the new law on caretakership in Germany. Subject to compliance with the legal requirements, a guardian can therefore invest money of a person under guardianship in pfandbriefe if they fall under the Pfandbrief Act. In addition, all European Covered Bonds, i.e. covered bank bonds that meet the requirements of the European covered bond directive also qualify for this investment of money. Prior to 2023, the German Civil Code (Bürgerliches Gesetzbuch, BGB) regulated that pfandbriefe, among others, were gilt-edged (mündelsicher) investments. This status has also been retained for them under the new law on caretakership, whereby this status - and this is new as far as we know - has also been extended to European Covered Bonds from other European countries.

Source: DZ BANK

## DIGITAL PFANDBRIEF

### What is the legal basis for digital securities in Germany?

In June 2021, the law on the introduction of electronic securities (eWpG) created the legal basis for digital securities in Germany. The eWpG is supplemented by the Ordinance on the Requirements for the Electronic Securities Register (eWpRV) was added. Since then, issuers have had the choice of issuing their securities in the form of a physical certificate or as a digital data record. The eWpG does not stipulate a specific technology that the issuer must use for its electronic securities. In any case, the digital security is created by registration in an electronic securities register. Possible registers are central registers at central securities depositories or custodians or crypto securities registers. A licence is required to maintain a crypto securities register, which is issued by BaFin. In addition, a crypto custody licence is required for the custody and management of crypto securities (tokens) (see "Digital Pfandbriefe" on pfandbrief.market from March 2024).

### eWpG lays legal foundations for digital pfandbriefe

KfW issued a blockchain-based bond at the beginning of July 2024 (see details here). Berlin Hyp followed at the beginning of August 2024 with the first digital pfandbrief. According to a list of all bonds issued to date under the eWpG published on BaFin's website, a total of 108 crypto securities had been issued by 9 August 2024 (see here). KfW used the public platform Polygon for its digital bond. A private platform was used for the first digital pfandbrief, where access rights are required to view certain information. This means that data can be better protected on private platforms. On public platforms, more data can be viewed by platform participants without special authorisations.

### The first digital pfandbrief was issued in August 2024

#### THE FIRST BLOCKCHAIN COVERED BOND WAS ISSUED BY SOCIÉTÉ GÉNÉRALE SFH IN 2019, BUT THINGS WENT QUIET AGAIN AFTER THAT

The first blockchain covered bond was issued by Société Générale SFH on 18 April 2019. The issuer had retained the obligation à l'habitat with a volume of EUR 100m. At the time, Société Générale SFH used the public blockchain platform Ethereum for its test transaction.

Source: DZ BANK

### Are there special regulations for digital pfandbriefe in the Pfandbrief Act?

In order to enable the digital pfandbrief, the Pfandbrief Act first had to be amended. Before issuing a new pfandbrief, the cover pool monitor must confirm that a sufficiently high cover pool is available. For analogue pfandbriefe, this written trustee confirmation is sent to the central securities depository where the global certificate (Globalurkunde) for the pfandbrief in question is held. For digital pfandbriefe, the Pfandbrief Act had to be amended following the enactment of the eWpG so that the trustee confirmation can also be submitted electronically.

### Amendment to PfandBG enables digital pfandbrief

#### AN AMENDMENT TO THE PFANDBRIEF ACT WAS STILL NECESSARY FOR THE DIGITAL PFANDBRIEF

§ 8 (3) Pfandbrief Act: "In the case of a pfandbrief which is to be issued as an electronic security (...), the certificate (...) shall be filed with the same registrar (...) with which the terms and conditions of issue of the pfandbrief are filed before the pfandbrief is entered in an electronic securities register."

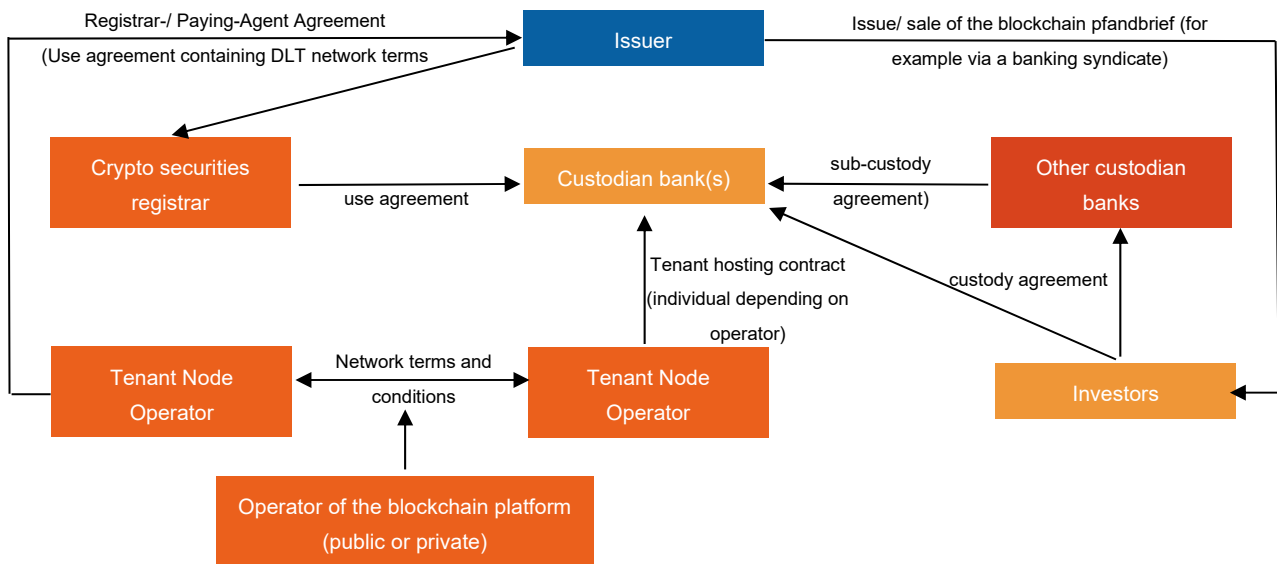
Source: Pfandbrief Act, DZ BANK

**Can blockchain technology be used for a digital pfandbriefe?**

Neither the eWpG nor the PfandBG specify a technology that must be used for digital pfandbriefe. For example, blockchain technology could be used, as has already been done. Generally speaking, a blockchain is a distributed ledger technology (DLT) that is used to manage data in decentralised computer networks. Cryptographic methods are used to store changes in this database, such as those relating to a bond, in chronological order in blocks. These blocks are combined in a register or ledger (see DZ BANK study "Blockchain: An attempt to explain" from 24 January 2018, available in German only). One advantage of blockchain is that transactions can be carried out in real time and therefore much faster than with conventional processing methods. The new technology also promises to be more cost-effective because participants can trade directly with each other on the platform without intermediaries (see DZ BANK study "Use of blockchain at banks" from 29 March 2018, available in German only).

**Blockchain as a possible technology for a digital pfandbriefe**

**DIGITAL PFANDBRIEF WITH BLOCKCHAIN TECHNOLOGY: WHO IS INVOLVED?**



Source: Berlin Hyp, DZ BANK

Investors do not have to be registered on the blockchain platform themselves in order to trade a digital pfandbriefe. However, the prerequisite is that the investor's custodian bank has access to the blockchain platform relevant to the bond or that another custodian bank has concluded an agreement with a custodian bank with corresponding blockchain access to sub-custody of the digital security. In our view, this could avoid the need for all investors to register with all relevant blockchain platform operators.

**Access to blockchain platforms**

**What are the similarities and differences between analogue and digital pfandbriefe?**

Investors in blockchain pfandbriefe enjoy the same rights as investors in analogue pfandbriefe. This means that all protective provisions in the Pfandbrief Act apply equally to analogue and digital pfandbriefe. In both cases, the issuer is a pfandbrief bank. At the moment, however, the technical requirements are not yet in place for digital pfandbriefe to be deposited as collateral with the European Central Bank. We expect the ECB to find a solution for this obstacle in the future. It is already possible to trade digital securities on the SIX Swiss Exchange (SIX) and SIX Digital Exchange (SDX) (see example here). This could potentially also be a blueprint for stock

**Analogue and digital pfandbriefe have a lot in common, but there are also differences**

exchanges in the eurozone. To our knowledge, however, the Swiss model has not yet been implemented in the eurozone. Another question concerns the risk weighting of digital covered bonds. The Basel Committee has expressed concerns about digital assets due to technical risks (see here), which we understand primarily affect public blockchain platforms. As a consequence, digital securities, including covered bonds, on public blockchain platforms could face higher risk weights. However, as far as we are aware, the final word on this has not yet been spoken. Moody's has made no distinction in its rating between the first digital pfandbrief and the issuer's analogue counterparts.

#### DIFFERENCES AND SIMILARITIES BETWEEN ANALOGUE AND DIGITAL PFANDBRIEFE

	Analogue pfandbriefe	Digital pfandbriefe
Subject to the Pfandbrief Act	Yes	Yes
Issuer	Pfandbrief bank in accordance with the Pfandbrief Act	Pfandbrief bank in accordance with the Pfandbrief Act
Shape	Physical certificate (usually global certificate)	Digital data set
ECB capability	Possible	The technical requirements still have to be created by the ECB
Trading on a stock exchange	Possible	In the eurozone, the technical prerequisites for this still need to be created

Source: DZ BANK

## OUR ASSESSMENT

The PfandBG ensures a high level of protection for pfandbrief creditor, also in an international comparison. The amendments repeatedly made to the Pfandbrief Act since its creation in 2005 underline the fact that the legislator is endeavouring to react to a changing environment and to adapt the legal regulations for German pfandbriefe in line with the times. This phenomenon is not new. The legislator is merely continuing the course taken since the introduction of the Mortgage Bank Act, even if the frequency of amendments to the Pfandbrief Act has increased compared to the times of the Mortgage Bank Act as of 1899. At the same time, we believe it is a good thing that the legislator is repeatedly putting tried and tested regulations to the test and, if necessary, adapting them to the continuously changing regulatory environment and new market standards.

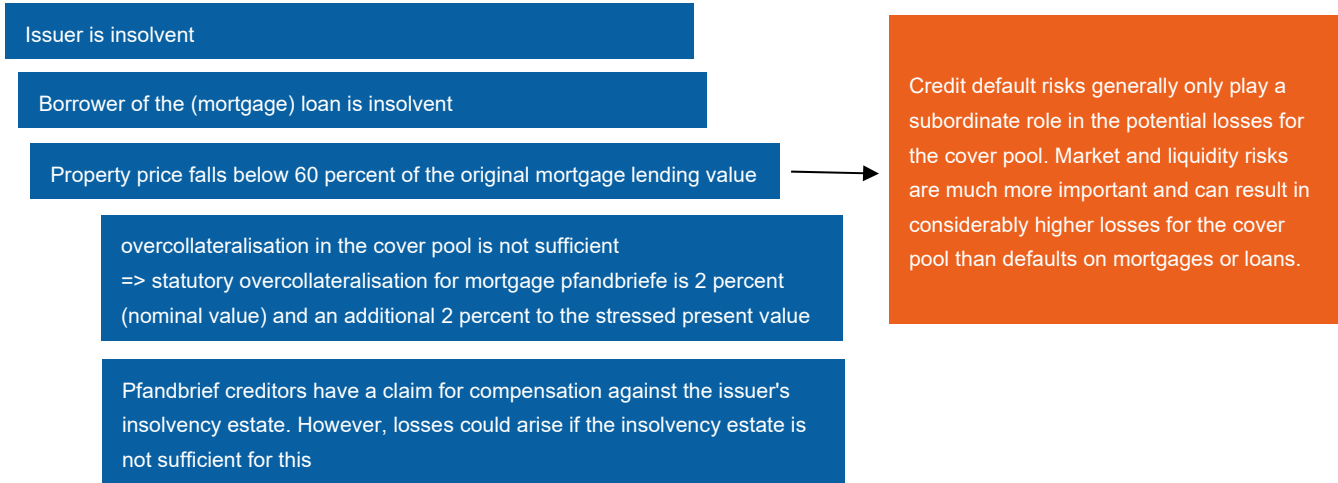
Rating agencies take a similar view. Moody's, for example, emphasises positively that the quality of the overcollateralisation for German pfandbriefe is very high because the overcollateralisation may only consist of qualified or eligible cover assets. This would not be the case everywhere in an international comparison. Fitch also praises the regulations in the Pfandbrief Act, which provide special protection for investors. Using the example of mortgage pfandbriefe, Fitch emphasises in the study "What Investors Want to Know: Commercial Real Estate Exposure in German Pfandbriefe" from 11 March 2024 that a lot has to come together before a pfandbrief creditor would suffer losses. Firstly, the pfandbrief issuer and the borrowers of the loans in the cover pool would have to be insolvent. In addition, property prices would have to fall so sharply that the buildings securing the mortgage loans fall below 60 percent of their mortgage lending value (whereby the mortgage lending value is never higher and in some cases significantly lower than the market value of the property). For the pfandbrief creditors to suffer losses, the overcollateralisation in the

**Adaptability of the German pfandbrief is a strength**

**Strengths in German Pfandbrief law limit the risks**

cover pool would also have to be insufficient to offset the losses from the loan defaults and the pfandbrief creditors' claim for compensation from the insolvency estate would also have to come to nothing. In our opinion, this cascade of security illustrates very well the high level of protection offered by pfandbriefe.

#### WHAT HAS TO HAPPEN FOR A PFANDBRIEF CREDITOR TO SUFFER LOSSES?



Source: Fitch, DZ BANK

The changes to the German pfandbrief legislation in 2022 ensure the status of mortgage pfandbriefe, public sector pfandbriefe and ship pfandbriefe as European Covered Bonds (Premium) in the future. This proves that due to the regular adjustments of the pfandbrief legislation, a modern framework is available which corresponds to the current international standards or can even contribute as a model for international standards.

#### **PfandBG ensures premium status**

## GLOSSARY OF TERMS FROM OVER 250 YEARS OF PFANDBRIEF HISTORY

### Pfandbriefe and covered bonds prior to the introduction of the Pfandbrief Act (up to 2005)

Güterpfandbriefe (pfandbriefe on a specific property), pfandbriefe issued by "Landschaften"	Güterpfandbriefe (pfandbriefe on a specific property) were issued at the end of the 18th century by Landschaften (cooperative of noble landowners such as the Silesian Landschaft). Initially, Landschaften were compulsory public-law cooperatives of noble landowners with large estates (Rittergüter) in a particular region (e.g. Silesia or Eastern Prussia). The Landschaften helped their members access credit by issuing pfandbriefe which were then handed out to borrowers and sold on by them to creditors. The Landschaft guaranteed the pfandbriefe which were issued for which in turn all the members (initially) stood as guarantors jointly and severally. The credit framework for each individual member was dependent on the respective earning power of that member's estate who could lend up to half its value.
Pfandbriefe issued by "Stadtschaften"	In the 19th century, "Stadtschaften" also emerged modelled on the Prussian Landschaften. These Stadtschaften were an association including urban house owners among others. The local Stadtschaften were regrouped in the Prussian Central Stadtschaft in order to better coordinate their pfandbrief issues. Looking back, this is a precursor of the pooling idea.
Pfandbriefe issued by "Industrieschaften"	"Industrieschaften" in turn copied the model of the Landschaften and Stadtschaften. They were associations of small and medium-sized enterprises which aimed to provide funding for their members through the issue of pfandbriefe. In the end, however, this precursor of SME covered bonds could not gain a foothold.
Rentenbriefe	Agricultural reforms in Prussia in the early 19th century were aimed at enabling farmers to buy their freedom from compulsory labour and other obligations towards the landowners. However, farmers often lacked the necessary means. A solution to this problem was offered by the Rentenbanken which date from the same time with the issue of tradable "Rentenbriefe" or annuity bonds, which were handed over to the landowners as a form of compensation. The farmers paid interest and principal to the Rentenbanken, with which the latter in turn serviced the Rentenbriefe. Rentenbriefe differ significantly from Güterpfandbriefe in so far as they did not envisage compulsory membership of all farmers in a specific region who would be jointly and severally liable for each other. Farmers were free to decide to sign an agreement with the Rentenbank and were only liable for their own debt to the Rentenbank which in turn were liable to the bondholders. This fundamental innovation was also used by the mortgage banks which sprang up at the same time and gradually also established itself with the Landschaften.
Pfandbriefe issued by mortgage banks under the Mortgage Bank Act (HBG)	In the mid-19th century, mortgage banks developed as limited companies which were allowed to issue pfandbriefe. In general, the mortgage banks lending business was strictly limited and concentrated on property financing. There were also mixed mortgage banks with a broader spectrum of activities. Any pfandbriefe issued always had to be covered to a sufficient degree by mortgage loans. The Mortgage Bank Act was passed in 1899 under the German Reich in order to standardise the legal principles for pfandbriefe; the act came into force on 1 January 1900. The HBG was only replaced by the Pfandbrief Act on 19 July 2005. The trademark "pfandbrief" was first registered in 1930. Rules were approved in 1940 making pfandbriefe gilt-edge instruments.
Public-sector bonds (Kommunalschuldverschreibungen) or pfandbriefe under the Act relating to Pfandbriefe and Similar Instruments issued by Public Credit Institutions (ÖPG)	Mortgage banks have issued municipal bonds (Kommunalschuldverschreibungen) since the end of the 19 century for the purpose of funding loans to the public sector. In this manner, the special credit institutions opened up a new business activity. There were also issuers of municipal bonds which were could be involved in a much broader spectrum of credit activities than the mortgage banks which were regulated by law (including industrial loans). These banks also issued pfandbriefe which became the object of a debate in the 1920s under the heading "Pfandbrief ohne Pfand (or pfandbrief without pledge). Ultimately, this debate led to the Act relating to Pfandbriefe and Similar Instruments issued by Public Credit Institutions (ÖPG) of 21 December 1927 which was replaced from 19 July 2005 by the Pfandbrief Act. Key provisions in the ÖPG are modelled on the HBG. The ÖPG made provisions for matching cover of loans and issued covered bonds, for a cover register to be kept and for the preferential claim of bondholders in the event of a default of the issuer.
Pfandbriefe under the Ship Banking Act (SchBG)	The Ship Banking Act was approved on 14 August 1933; the Act regulated the issue of pfandbriefe backed by ship mortgages; it was replaced by the Pfandbrief Act on 19 July 2005.
Liquidation-gold pfandbriefe (liquidation pfandbrief or Liquidationspfandbrief)	After hyperinflation in Germany had been overcome in 1923, the value of mortgages and bond claims was raised by law, in order slightly to offset the huge losses incurred by bondholders after the devaluation of the currency. The value of pfandbriefe was raised slightly more than that of other asset classes, as a result of which, pfandbrief holders suffered slightly smaller losses. However, pfandbrief issuers were unable to compensate the increase in value of the old issue immediately in cash. Holders of the old pfandbriefe received liquidation pfandbriefe in compensation, which were paid interest and repaid after a few years.

Source: "Der Pfandbrief 1769-2019 - Von der preußischen Finanzinnovation zur Covered Bond Benchmark", presentation DZ BANK

### Modern pfandbriefe as per Pfandbrief Act (post 2005)

Aircraft pfandbriefe	Only claims secured by registered liens on aircraft or foreign aircraft mortgages may be used as cover for aircraft pfandbriefe. The legal basis was set out in the Pfandbrief Act in 2009.
Mortgage pfandbriefe	Only mortgages may be used as cover for mortgage pfandbriefe insofar as they meet the requirements of the Pfandbrief Act. They are the oldest type of pfandbrief.
Public sector pfandbriefe	The Pfandbrief Act defines the debtors (public-sector bodies and public institutions) whose claims may be used in the cover pool for public pfandbrief. The term "public sector pfandbrief" was first coined at the beginning of the 1990s and was aimed at making a clear distinction in relation to mortgage pfandbriefe. The terms commonly used before that were "Kommunalobligation" or "Kommunalschuldverschreibungen" (public-sector bonds or municipal bonds).
Ship pfandbriefe	Only loan claims which are secured by ship mortgages may be used as cover for ship pfandbriefe insofar as they meet the requirements set out in the Pfandbrief Act. Today's ship pfandbriefe go back to the pfandbriefe under the Ship Banking Act of 1933.

Source: "Der Pfandbrief 1769-2019 - Von der preußischen Finanzinnovation zur Covered Bond Benchmark", presentation DZ BANK

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**Market relevant criteria for pfandbriefe**


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All the pfandbriefe shown in the table below only differ in terms of the format of their issue and are subject to the same collateral requirements. As explained in detail in the section on the Pfandbrief Act, all pfandbriefe of a specific type (e.g. mortgage pfandbriefe) from a particular issuer are collateralised against the same cover pool.

Blockchain pfandbrief (digital pfandbrief or crypto pfandbrief)	Blockchain is a distributed ledger technology (DLT) that is used to manage data in decentralised computer networks. Cryptographic methods are used to store changes in this database, such as those relating to a bonds, in chronological order in blocks. These blocks are summarised in a ledger. One advantage of blockchain is that transactions can be carried out in real time and therefore faster than with conventional settlement procedures. The legal basis for blockchain pfandbriefe in Germany is provided by the 2021 Act on the Introduction of Electronic Securities (eWpG). Otherwise, investors in blockchain pfandbriefe enjoy the same rights as investors in analogue pfandbriefe.
Bearer pfandbriefe	Bearer pfandbriefe are freely tradable securities and can be securitised by a certificate. The transfer of a bearer pfandbrief does not require the prior approval of the issuer.
Registered pfandbriefe	Registered pfandbriefe differ from bearer pfandbriefe in so far as they are issued individually in line with the needs of investor and issued in the latter's name. Consequently, they are not fungible and any transfer to other investors is an onerous task.
Traditional pfandbriefe	Traditional pfandbriefe have an issue volume of under EUR 500m. Unlike in the case of benchmark or jumbo pfandbriefe, there is no market-making on offer involving at least three banks. Other so-called sub-benchmarks also come under this label; these have an issue volume of at least EUR 250m - a relevant issue size for the minimum liquidity ratio. As a rule, this category includes privately placed bonds, among which not least registered pfandbriefe.
Benchmark pfandbriefe	Benchmark pfandbriefe have an issue volume of at least EUR 500m and are placed publicly. The syndicate of banks which manages the placement is committed to quote bid and ask prices on demand, also for the time after the new issue has been launched. Benchmark pfandbriefe with an issue volume of EUR 1bn or over are called "jumbo" pfandbriefe. Benchmark pfandbriefe became popular in the wake of the ECB's first covered bond purchase programme (CBPP1) and were also called "Jumbolinos" at the beginning. Markit includes euro-denominated benchmark pfandbriefe (or benchmark covered bonds) in its iBoxx € Covered Index if they have a minimum maturity of over one year and an investment grade rating.
Jumbo pfandbriefe	The minimum size of jumbo pfandbriefe is EUR 1bn and they are placed publicly. The syndicate of banks involved in the placement of such pfandbriefe are committed to provide bid and ask price, also for the time after the new issue has been launched. Like benchmark pfandbriefe, jumbo pfandbriefe also qualify for inclusion in the iBoxx € Covered Index for example, if they also meet relevant criteria regarding the minimum maturity and rating.
Sub-benchmark pfandbrief	The size of sub-benchmark pfandbriefe is less than EUR 500m but at least EUR 250m. This minimum level is important in the context of rules about the minimum liquidity ratio of banks, because, under certain conditions such as rating, covered bonds with an issue volume of at least EUR 250m can qualify as Level 2A assets.
Foreign-currency pfandbriefe	Typically, pfandbriefe tend to be denominated in euro, the official currency in Germany. However, they can also be denominated in other currencies. Non-euro-denominated pfandbriefe are also called foreign currency pfandbriefe from the German point of view.
Zero-coupon pfandbriefe	Interest is paid for depositing money, and in the case of bonds such as pfandbriefe, interest is in the form of a coupon (fixed or variable rate). For pfandbriefe with a coupon of 0 percent (or a zeron coupon), attracting investors for the money handed over for the duration of the pfandbrief is the difference between the issue price at the time of purchase or issue and the repayment amount at the maturity of the pfandbrief. In view of generally very low interest rates since 2019, situations could arise in which the pfandbriefe are issued above par and repaid at par even though there was no coupon payment during the lifetime of the bond. In such cases, the pfandbrief's (issue) yield is negative. The advantage for investors is merely that other similar forms of investment lead to higher losses.

Source: vdp, DZ BANK

### Special repayment agreements for pfandbriefe in last 250 years

Pfandbriefe with termination rights	If the necessary agreements are made at the time of the issue of the bond, issuers can repay their bond before it matures. This termination option has been available for a long time. In the past, it was used to help manage matching maturities between the refinancing of the mortgage bank and its lending business (back then, pfandbriefe with a 50-year maturity were not unusual). Calling partial amounts of the volume outstanding of a pfandbrief was also possible, whereby repayments to individual series were determined by random selection. In the 19th century, there were also pfandbriefe with holder termination rights (to make the pfandbrief more attractive). However, termination rights are no longer allowed in the case of modern pfandbrief holders in order to protect the issuer's liquidity and that of the cover pool.
Redemption pfandbriefe	Under an old rule in the Mortgage Bank Act, for a suitable share of newly issued pfandbriefe, repayment had to begin after one third of the term of the bonds had elapsed. A share of 40 per cent was regarded as appropriate and it could also include pfandbriefe with an original maturity of less than 15 years. This rule was therefore of no practical relevance.
Gold pfandbriefe along with grain pfandbriefe on rye and wheat	In the case of some pfandbriefe dating back from the period of hyperinflation in Germany in the 1920s, the repayment amount of the bond was pegged to the value of a specific amount of gold or grain types such as rye and wheat in order to ensure that the pfandbrief kept its value in real terms. The pfandbriefe were securitised by mortgage loans, as usual.
Bonus pfandbriefe	Bonus pfandbriefe were repaid during their life based on a fixed repayment and bonus plan. In addition to the regular capital repayments, there were annual prize draws in which specific series of outstanding pfandbriefe were identified which then received a bonus payment. The aim of the lottery was to promote the attraction of pfandbriefe against sovereign bonds in order to increase the sale of pfandbriefe. The issue of bonus pfandbriefe was banned in 1871.
Premium pfandbriefe and index pfandbriefe	In the case of premium pfandbriefe, the bonds' redemption value exceeds their nominal or face value. Prior to the introduction of the Mortgage Bank Act, there were pfandbriefe which were repaid with a premium of 10 to 20 per cent against the nominal value upon termination. However, premium pfandbriefe were banned with the introduction of the Mortgage Bank Act. Pfandbriefe with a step-up-coupon, however, are still allowed. In addition, according to the Mortgage Bank Act, indexed pfandbriefe are also permissible for which the redemption value is higher than the nominal value, so long as the maximum redemption value is known at the time of issue.
Existing savers' (Altsparer) pfandbriefe	After WWII, pfandbriefe as well as cash were devalued based on a ratio of 10:1 through the currency reform in 1948 in the western German occupied zone. The gains of mortgage debtors through the devaluation of the loan claims were confiscated by law and put towards the general equalisation of the war burden (Lastenausgleich). Consequently, part of the intrinsic value of the properties underlying the cover pool for the mortgage pfandbriefe as collateral was withdrawn. To offset this, existing savers (i.e. those with holdings at 1 January 1940) received compensation of 10 per cent. Bonds which had been converted and were still denominated in Reichsmark were combined into Altsparepfandbrief series and were moreover exempt from tax. In exchange for the compensation paid to former investors, the mortgage banks received claims on the state (central government body).

Source: "Der Pfandbrief 1769-2019 - Von der preußischen Finanzinnovation zur Covered Bond Benchmark", presentation DZ BANK

### Pfandbriefe with a societal impact

Green pfandbrief	Since 2019, the Association of German Pfandbrief Banks has held the right to the word mark "Grüner Pfandbrief" or "Green Pfandbrief", for which the Association has published minimum standards. Pfandbrief banks wishing to use the "Green Pfandbrief" brand must comply with these minimum standards. So far there have only been Green Mortgage Pfandbriefe, the issue proceeds of which flow primarily into the financing of particularly energy-efficient buildings. Like all other sustainable covered bonds, Green Pfandbriefe also refer to the same cover pool as all other bonds of the same type.
Rentenbriefe	See above under "Pfandbriefe and covered bonds prior to the introduction of the Pfandbrief Act (up to 2005)"
Social pfandbrief since 2021 (Sozialer Pfandbrief)	In March 2021, the Association of German Pfandbrief Banks published minimum standards for "Soziale Pfandbriefe" or "Social Pfandbriefe", which - similar to those for Green Pfandbriefe - must be met by issuers if they wish to adorn their bonds with this name.
Social pfandbrief from the 1950 <sup>th</sup> (Sozialpfandbrief)	Social pfandbriefe were pfandbriefe and public-sector bonds of which 90 percent of the proceeds were used to promote social housing construction. They were used in the post-war era to alleviate the housing shortage in Germany. Interest on social pfandbriefe was made tax-free in 1952 with the first Act to Promote the Capital Market. These tax-advantaged social pfandbriefe have all been repaid already.
Sustainable pfandbrief	Issue proceeds from Sustainable pfandbriefe are only used to finance public-sector projects or property financings which meet a fairly broad definition of sustainability criteria (environmental, social & governance, ESG). The cover used for these pfandbriefe is the same as in the case of all other bonds of this type.

Source: "Der Pfandbrief 1769-2019 - Von der preußischen Finanzinnovation zur Covered Bond Benchmark", presentation DZ BANK



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The assessment of an investment in a currency area is geared to the aggregate return expected from an investment in that currency area. As a rule, this aggregate return is primarily derived from the forecast change in the exchange rates. Aspects such as the general interest rate level and changes in the yield level of bonds on the relevant bond market that are possibly to be taken into consideration are also included in the assessment.

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For derivatives (Bund futures, Bobl futures, treasury futures, Buxl futures) the arrows (↑) (↓) (↔) merely indicate the trend direction and do not contain any investment recommendation. The trend direction is derived solely from the use of generally recognised technical analysis indicators without reflecting an analyst's own assessment.

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Share indices (technical daily):	publication day
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Country weightings for covered bonds:	six months
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Commodities:	one month

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