



German Public Sector Pfandbriefe Programmes — Peer Review

January 2019

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Highlights

Programme	LT IDR	IDR uplift	PCU	Tested rating on a PD basis	Recovery uplift	CVB rating	CVB Outlook	Cushion against IDR downgrade	Breakeven OC for rating	OC Fitch relies upon
BayernLB	A-/Stable	1	5	AA	2	AAA	Stable	2 notches	10.0	27.2
Helaba	A+/Stable	2	5	AA	2	AAA	Stable	5 notches	6.5	25.2
Unicredit	BBB+/Negative	2	5	AA	2	AAA	Stable	2 notches	9.0	22.8
SaarLB	A-/Stable	1	5	AA+	2	AAA	Stable	2 notches	26.0	36.3

Source: Fitch Ratings; For abbreviations see slide 11

‘AAA’ Ratings Remain Unchanged: All Fitch-rated German public-sector Pfandbrief programmes are rated at the highest rating level, ‘AAA’, namely those of Bayerische Landesbank (BayernLB), Landesbank Hessen und Thuringen (Helaba), Unicredit Bank AG (Unicredit) and Landesbank Saar (SaarLB). Significant cushions against IDR downgrades and the sound macroeconomic environment in Germany support the Stable Outlooks.

Ratings Linked to Germany: Between 45% and 68% of the cover assets are either directly exposed to or guaranteed by the German sovereign or its federal states. Hence, Fitch credit-links the covered bond ratings to the German sovereign rating (AAA/Stable/F1+).

Credit-Loss Driver for Most: Credit loss is driving the breakeven overcollateralisation (BE-OC) for three out of the four programmes. Although, the derived BE-OC is comparably low at 6.5% to 10% for programmes with at least 90% concentration in Germany.

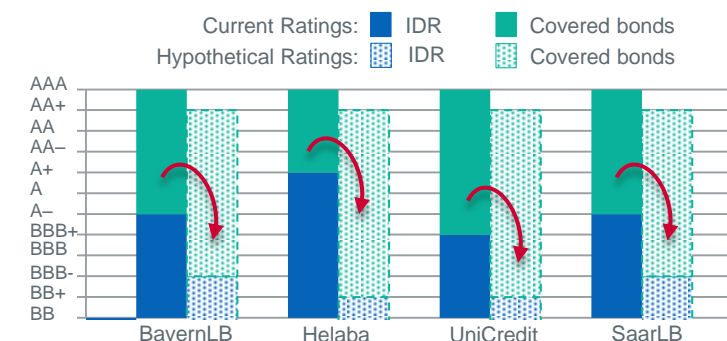
The programmes’ credit loss components range between 3.8% and 23.2%, reflecting the different cover pool compositions. BayernLB, Helaba and Unicredit excel with an exposure to German obligors above 90%. For SaarLB, this figure is still slightly above 70%, with the remainder of SaarLB’s cover pool consisting of French assets.

Large OC Cushions: The four issuers maintain a significant OC (34% on average), well above Fitch Ratings’ breakeven OC for the ratings.

Varying Exposure to Rising Interest Rates: Unicredit’s and SaarLB’s public sector programmes have a high share of floating cover assets (23% and 26% respectively). They are, therefore, less exposed to net present value losses occurring in an environment of rising interest rates. This is different to BayernLB’s programme where more than 90% of assets are fixed rate. Helaba’s Pfandbrief rating is based on recoveries. Interest rate stresses are, therefore, not considered.

Resilience Against Issuer Downgrades: All four programmes benefit from uplifts above the IDR, providing a cushion of two to five notches. This limits the sensitivity of the Pfandbrief ratings to issuers’ downgrades.

Cushions against issuers’ downgrades



Source: Fitch Ratings

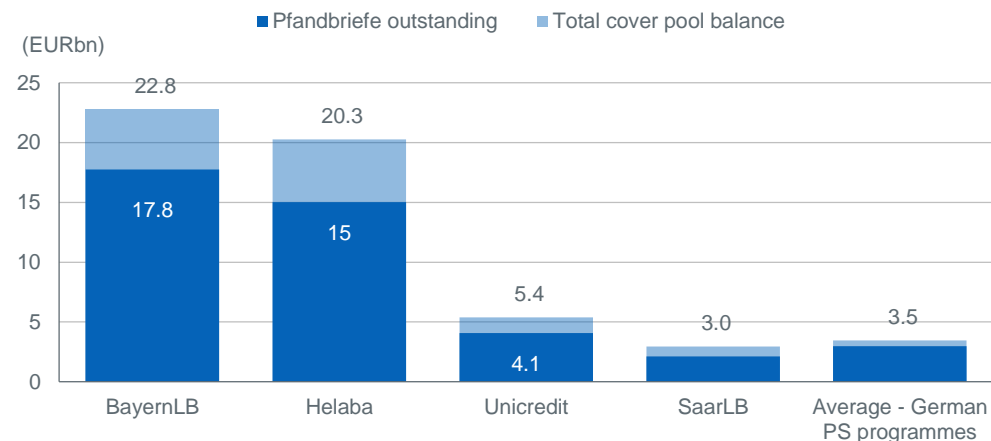
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Pfandbriefe Programmes Summary

Pfandbriefe Outstanding vs. Cover Pool

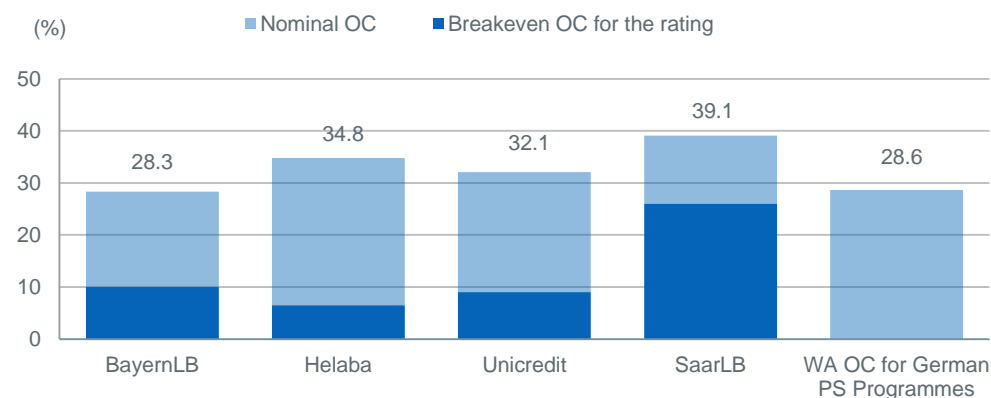
As of September 2018



Source: vdp; Average pool size refers to the median value across 22 active German PS covered bonds' programmes

Overcollateralisation protection

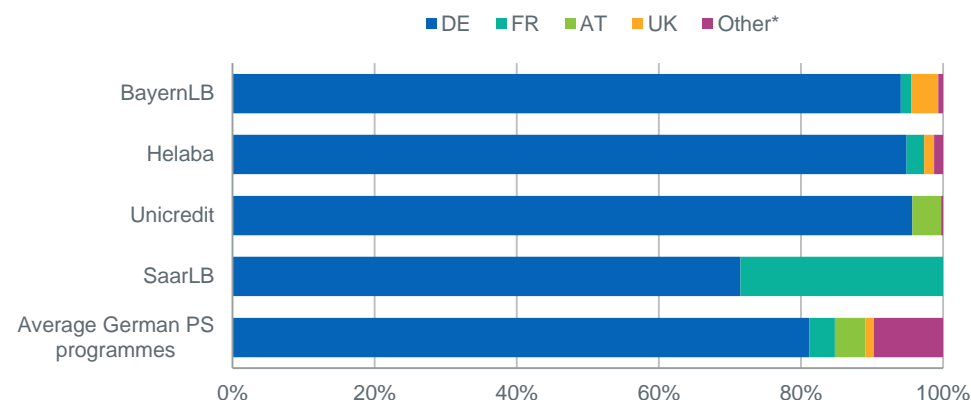
As of September 2018



Source: vdp, Weighted Average (WA) OC references 22 active German PS Programmes

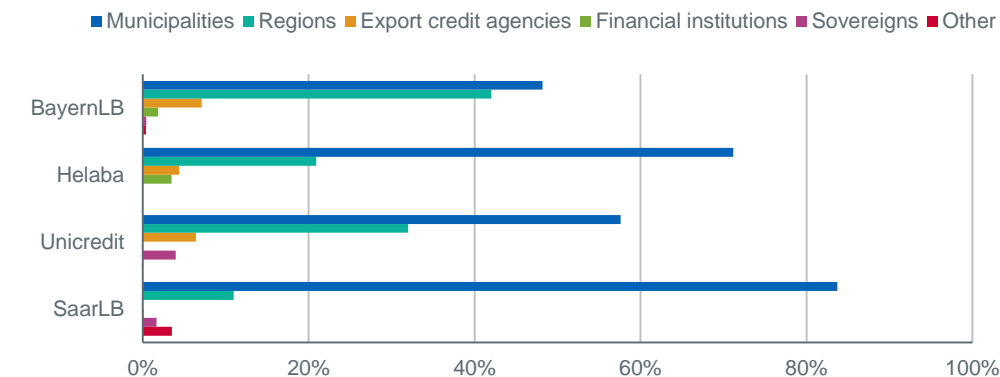
Geographic distribution of assets

As of September 2018



Source: vdp, Average references 22 active German PS Programmes; *Other are: ES 1.9%, IT 1.8%, CH 0.9%, US 0.8% etc.

Asset type distribution



Source: Fitch Ratings

Breakeven OC Drivers

Credit Loss Component

The ratings of all Fitch-rated German public-sector Pfandbrief programmes are credit-linked to the rating of the German sovereign (AAA/Stable/F1+). Based on the German tax equalisation system, the credit-linked exposure does not only comprise German sovereign assets but also loans directly exposed to, or guaranteed by, its federal states. In Fitch's analysis, credit-linked assets are modelled as risk-free.

Naturally, a higher share of credit-linked exposure corresponds with lower default rates, which can be seen for BayernLB and Unicredit. The higher default rate for Helaba and SaarLB is offset by the programmes' municipal exposure, where Fitch assumes recovery rates of up to 70% compared with 15% for sovereign exposure (AAA scenario). SaarLB's exposure to French municipalities is subject to the 15% sovereign recovery rate in scenarios exceeding the French 'AA' sovereign rating. In these rating scenarios, a high share of French municipalities is expected to default. Both effects cumulate, therefore driving the credit loss in rating scenarios above 'AA'.

Non-credit Loss Component

The non-credit loss (ALM loss) component reflects the modelled maturity, interest rate and FX mismatches. German public-sector Pfandbriefe are vulnerable to two scenarios. These are the combination of low interest rates and high prepayments^a compressing the programme's excess spread (Unicredit, SaarLB) and high interest rates in a low prepayment scenario, significantly decreasing the present value of assets with long remaining terms to maturity (BayernLB).

Programmes in predominantly fixed-rate markets such as Germany are generally more vulnerable to stressed high interest-rate environments. This is the case for BayernLB's ALM loss, where over 90% of the cover assets pay fixed interest rate.

A higher share of floating or resetting assets, as in Unicredit's and SaarLB's cover pools, reduces potential net present value losses of the pool in a high interest-rate scenario. These programmes are more vulnerable to high prepayment scenarios, which effectively reduce the modelled weighted average life (WAL) of assets and consequently lower the excess spread of the portfolio. This effect is partially offset by more cash being available and, therefore, reduced modelled asset sales needed to ensure the timely payment of outstanding Pfandbriefe.

^aAccording to Fitch's 'Covered Bonds and CDOs Public Entities' Asset Analysis Rating Criteria', the agency tests for low and high prepayment rate scenarios ranging between 0% and 5%.

Breakeven OC Components

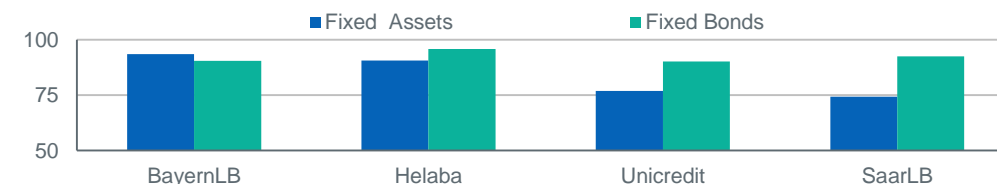
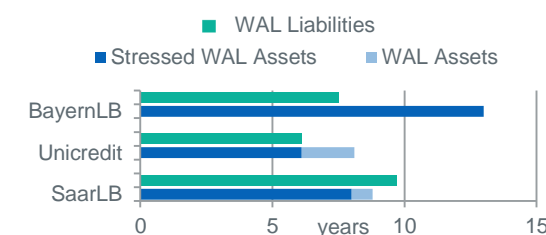
	(%)	BayernLB	Helaba	Unicredit	SaarLB
Breakeven OC for the rating		10	6.5	9	26
Credit loss		3.8	6.5	4.7	23.2
ALM loss		6.1	NA	4.3	2.9
Tested rating on PD Basis		AA	AA	AA	AA+

Credit Analysis

	BayernLB	Helaba	Unicredit	SaarLB
Credit Linked Exposure (%)	46.6	24.4	38.4	9.3
German Municipal Exposure (%)	45.4	68.4	57.6	61.7
WA Rating of Assets	A+	A-	A+	BBB+
Number of PS exposures	91,839	19,764	2,064	1,161

Non-credit loss drivers^b

Interest rate scenario	Prepayments	
	Low	High
	Stable	Unicredit, SaarLB
Increasing	BayernLB	



Source: Fitch Ratings, ^b Helaba's Public Sector Pfandbrief rating is based on a 'AA' rating floor and a two-notch recovery uplift. Therefore we do not seize for ALM loss; Due to modelled low prepayment scenario BayernLB's stressed WAL of assets coincides with actual one.

Detailed Cover Pool Data by Programme



Bayerische Landesbank

Key Rating Drivers

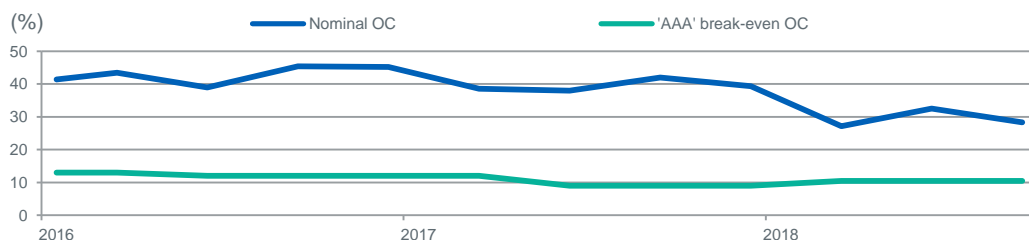
Rating Rationale: The 'AAA' rating is based on BayernLB's Long-Term Issuer Default Rating (IDR) of 'A-', an IDR uplift of one notch, a payment continuity uplift of five notches, two notches recovery uplift and the 27.2% overcollateralisation (OC) Fitch relies upon, which provides more protection than the 'AAA' breakeven OC of 10%. The Stable Outlook on the rating reflects the two-notch buffer against an IDR downgrade.

Credit Linked Exposure: The programme's rating continues to be credit-linked to Germany (AAA/Stable/F1+) as around 47% of the cover assets are either directly exposed to, or guaranteed by, the German sovereign or its federal states. The credit loss remains low compared with that of peers, which also reflects the geographical concentration of the cover pool to Germany (94%). International exposure is almost entirely to highly-rated countries, largest exposures in UK with the share of UK assets gradually shrinking.

Vulnerability to Low Prepayments: The programme is exposed to a low prepayment scenario where less cash is available and, therefore, modelled asset sales increase, to ensure the timely payment of the outstanding Pfandbriefe. This negative impact is partly offset by the assets' ability to earn more excess spread than if prepaid.

Large and Granular Cover Pool: As of September 2018, the cover pool comprised 91,839 assets with an average loan amount of EUR248,000, significantly below peer average. In line with other Landesbanken, the exposure is regionally concentrated – Bavaria accounts for about two-thirds of the cover pool. The programme is currently the largest of German public-sector Pfandbrief programmes in terms of cover pool size and outstanding bonds.

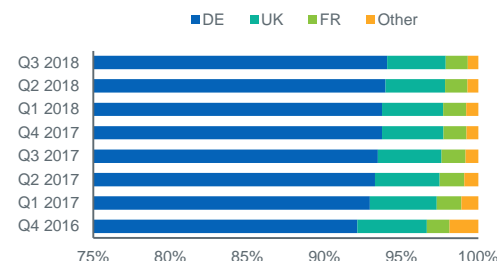
Break-even-OC development



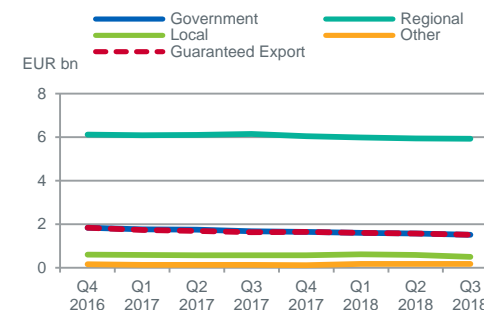
Source: Fitch Ratings, BayernLB

Programme-specific developments

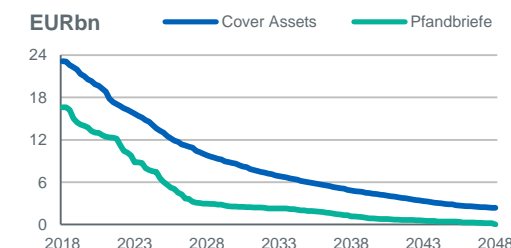
Country of assets



Guarantees



Amortisation profile



Source: Fitch Ratings, BayernLB, vdp

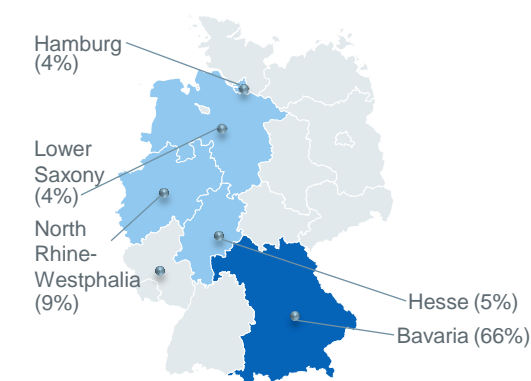
Outstanding volumes (Q3 2018)		
Cover assets [bn]	22.8	
Covered bonds [bn]	17.8	
Current OC (%)	28.3	
'AAA'-Credit loss	(%)	
Rating default rate (RDR)	17.1	
Rating recovery rate (RRR)	62.6	
Rating loss rate [RDR*(1-RRR)]	6.4	
Credit Loss Component [RLR/(1-RLR)]	6.8	
Currency breakdown	Assets (%)	Bonds (%)
EUR	95.9	95.6
GBP	2.6	3.8
USD	1.3	0.6
CAD	0.1	--

Regional distribution

(% of German Assets)

0 – 10% 10 – 20% > 20%

Exposures above 2% shown



Landesbank Hessen-Thüringen Girozentrale

Key Rating Drivers

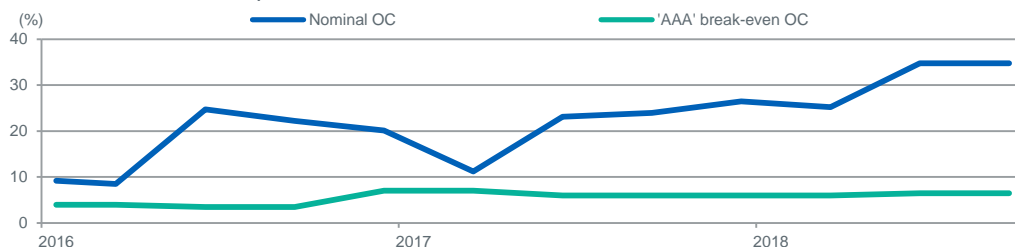
Rating Rationale: The 'AAA' rating is based on Helaba's Long-Term Issuer Default Rating (IDR) of 'A+', an IDR uplift of two notches and a two notches recovery uplift. The rating is also based on the overcollateralisation (OC) that Fitch relies on of 25.2%, which provides more protection than the unchanged 'AAA' breakeven OC of 6.5%. The Stable Outlook on the rating reflects a five-notch buffer against an IDR downgrade due to the different uplift factors above the bank's IDR.

Highly-Rated Issuer: The combination of the IDR rating of 'A+' and the two-notch IDR Uplift results in a rating floor of 'AA', which enables the programme to reach the 'AAA' rating on a recovery basis.

As the issuer is highly rated at 'F1+', Fitch relies in its analysis on the issuer to manage interest-rate and currency mismatches between the cover assets and the Pfandbriefe. Fitch does not stress unhedged interest-rate and currency mismatches in its quantitative analysis. The jump-to-default risk is viewed as sufficiently remote. This ensures that the issuer has enough time to implement remedial actions upon losing its highly rated condition.

Low-Risk Cover Pool: Helaba's unchanged breakeven OC of 6.5% remains driven by the 'AAA' credit loss component. Helaba's 'AAA' credit loss of 6.5% is the lowest when compared with peers. The portfolio is geographically concentrated in Germany (95% of cover assets), mainly in the home region of Hesse. Residual international exposure is mostly to highly-rated countries. The high share of municipal exposure leads to strong 'AAA' recovery expectations as Fitch assumes higher recoveries of 80% for German municipal obligors.

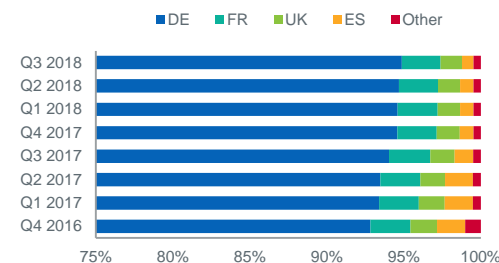
Break-even-OC development



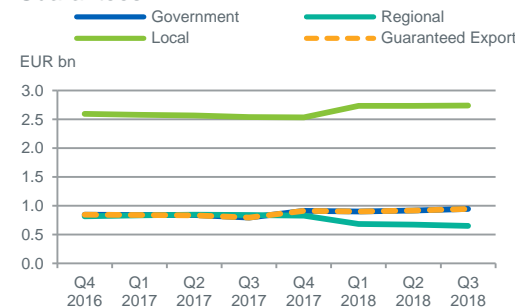
Source: Fitch Ratings, Helaba

Programme-specific developments

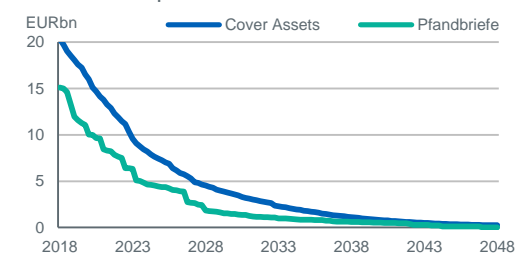
Country of assets



Guarantees



Amortisation profile

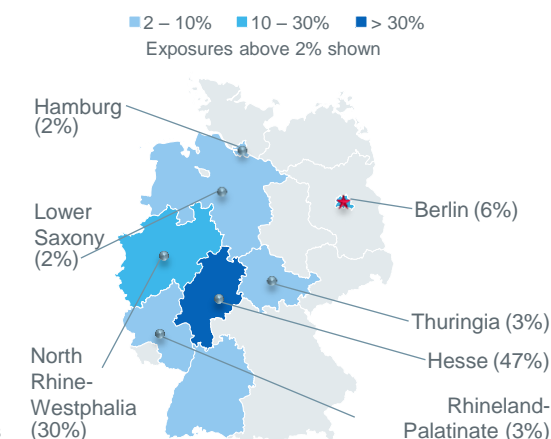


Source: Fitch Ratings, Helaba, vdp

Outstanding volumes (Q3 2018)

Cover assets [bn]	20.2
Covered bonds [bn]	15.0
Current OC (%)	34.8
‘AAA’-Credit loss	(%)
Rating default rate (RDR)	18.4
Rating recovery rate (RRR)	66.8
Rating loss rate [RDR*(1-RRR)]	6.1
Credit Loss Component [RLR/(1-RLR)]	6.5
Currency breakdown	Assets (%) Bonds (%)
EUR	97.4 96.5
USD	1.5 3.5
CHF	1.0 --

Regional distribution (% of German Assets)



UniCredit Bank AG

Key Rating Drivers

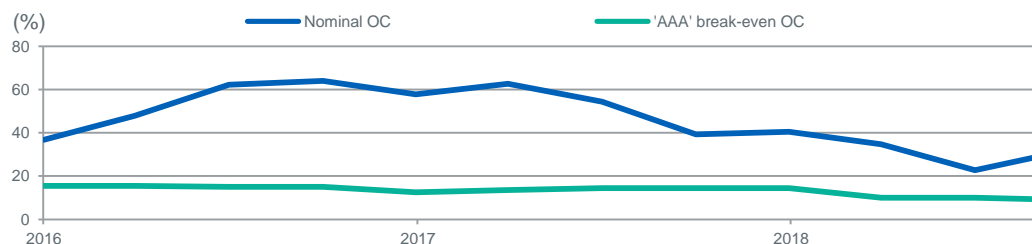
Rating Rationale: The 'AAA' rating is based on HVB's Long-Term Issuer Default Rating (IDR) of 'BBB+', an IDR uplift of two notches, a payment continuity uplift of five notches and a two notches recovery uplift. The rating is also based on the 22.8% overcollateralisation (OC) that Fitch relies on, which provides more protection than the unchanged 'AAA' breakeven OC of 9%. The Outlook is Stable despite the Negative Outlook on HVB's IDR, given that a potential one-notch downgrade of its ultimate parent's IDR (UniCredit SPA; BBB/Negative/F2) would not result in a downgrade of the covered bonds.

Diversified across Germany: Unicredit's cover pool has the highest German exposure (96% of assets) among peers and is also one of the most diversified pools across the country. The cover pool further comprises a notable share of assets directly exposed to, or guaranteed by, the German sovereign or its federal states (38%).

Low Maturity Mismatches: The programme exhibits comparatively low maturity mismatches, as the weighted average life (WAL) of cover assets with 8.1 years is close to the WAL of outstanding Pfandbriefe (6.1 years). Under the modelled high prepayments assumption, the stressed weighted average life of assets becomes shorter, closely matching to the WAL of outstanding Pfandbriefe.

Limited Market-Risk Exposure: The programme has no open foreign-currency position, with the assets being mostly concentrated to Germany and Austria. The covered bond programme has a moderate initial open interest-rate position as 77% of assets but 90% of covered bonds pay fixed interest rates.

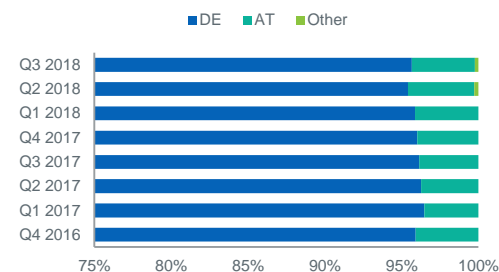
Break-even-OC development



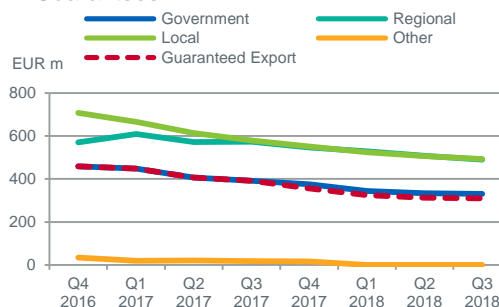
Source: Fitch Ratings, Unicredit

Programme-specific developments

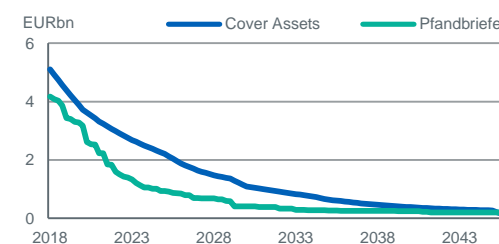
Country of assets



Guarantees



Amortisation profile



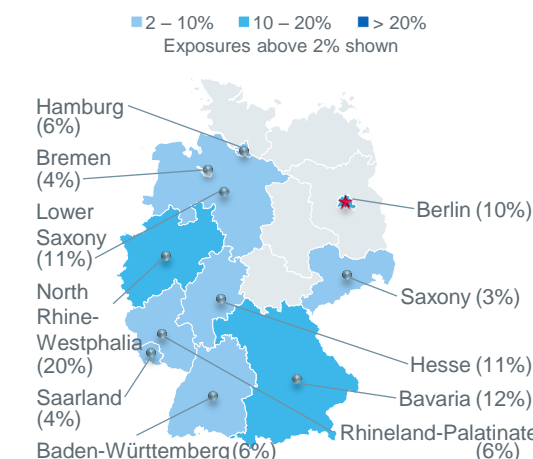
Source: Fitch Ratings, Unicredit, vdp

Outstanding volumes (Q3 2018)

Cover assets [bn]	5.3
Covered bonds [bn]	4.0
Current OC (%)	32.1
'AAA'-Credit loss (%)	
Rating default rate (RDR)	14.7
Rating recovery rate (RRR)	56.5
Rating loss rate [RDR*(1-RRR)]	6.4
Credit Loss Component [RLR/(1-RLR)]	6.8

Currency breakdown	Assets (%)	Bonds (%)
EUR	100	100

Regional distribution (% of German Assets)



Landesbank Saar

Key Rating Drivers

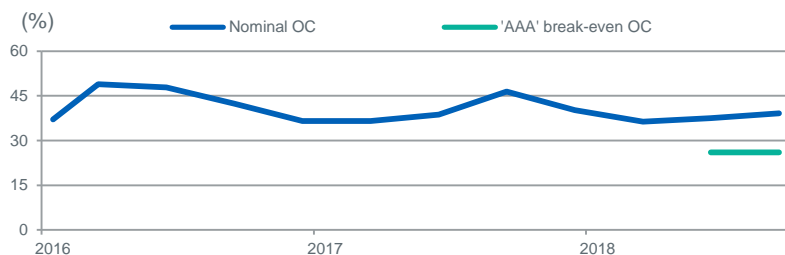
Rating Rationale: The rating is based on SaarLB's Long-Term Issuer Default Rating (IDR) of 'A-', a single-notch IDR uplift, a payment continuity uplift of five notches. The rating is also based on the overcollateralisation (OC) that Fitch relies on of 36.3%, which provides more protection than the 'AAA' breakeven OC of 26%. The Stable Outlook on the rating reflects the two-notch buffer against an IDR downgrade.

Stable Geographical Distribution: SaarLB's public sector portfolio has notable exposure to France (AA/Stable) of about 29%. This is due to the issuer's business model and geographical location. In line with peer-Landesbanken, SaarLB's German exposure is concentrated in its home region of Saarland and surrounding regions. The programme continues to be credit-linked to Germany (AAA/Stable/F1+).

French Exposure Conservatively Assessed: The French exposure is mainly made up of exposure to departments (38% of French exposure), followed by exposure to regions. The majority of French assets stems from the economically important regions of Grand-Est (around 40% of French exposure) and the Ile-de-France region (around 22% of French exposure). The majority of French assets is not publicly rated, therefore, we assigned conservative floor assumptions between 'A' (French regions) and 'BBB' (others).

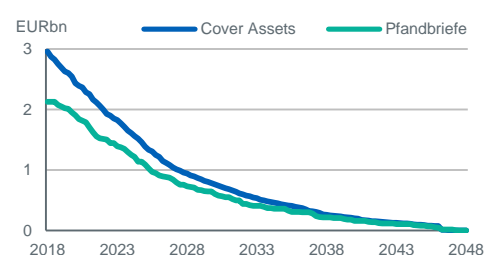
Low ALM Loss: The non-credit loss component remains relatively low, resulting from low maturity mismatches and no open FX positions. In scenarios assuming high prepayments, the excess spread earned by the programme is reduced but still higher than for peers.

Break-even-OC development



Source: Fitch Ratings, SaarLB

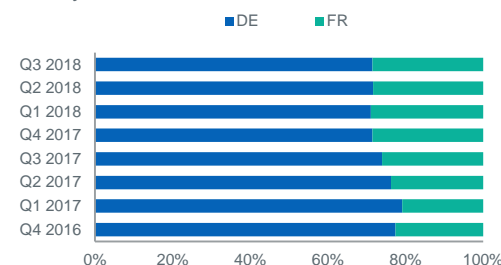
Amortisation profile



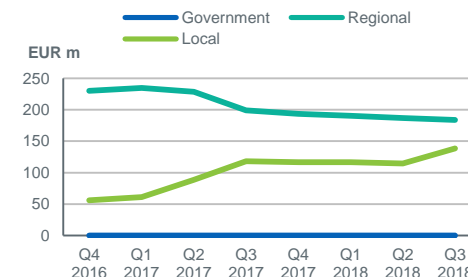
Source: Fitch Ratings, SaarLB, vdp

Programme-specific developments

Country of assets



Guarantees

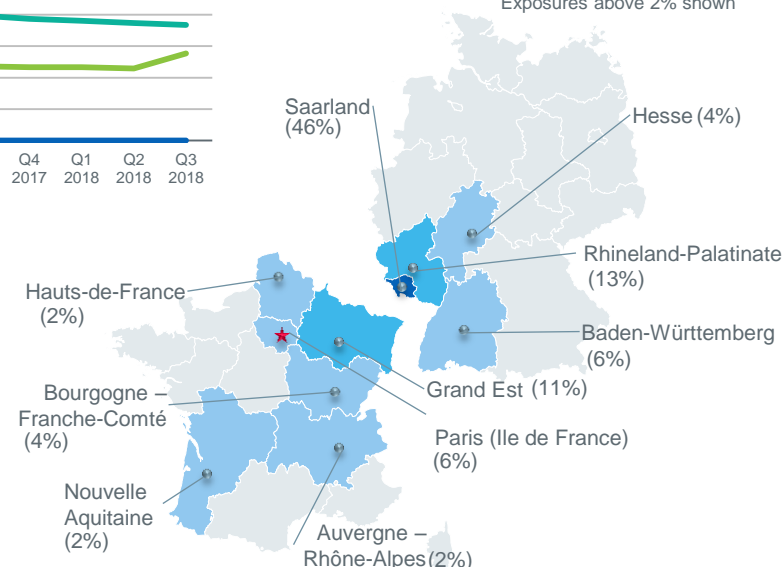


Outstanding volumes (Q3 2018)

Cover assets [bn]	3.0
Covered bonds [bn]	2.1
Current OC (%)	39.2
'AAA'-Credit loss (%)	
Rating default rate (RDR)	34.2
Rating recovery rate (RRR)	36.5
Rating loss rate [RDR*(1-RRR)]	21.7
Credit Loss Component [RLR/(1-RLR)]	27.7
Currency breakdown	
EUR	100
Assets (%)	100
Bonds (%)	100

Regional distribution

(% of total Assets)
 ■ 1 – 10% ■ 10 – 20% ■ > 20%
 Exposures above 2% shown



Appendix I: Definitions and Common Terms

Uplifts

IDR uplift	Number of notches between zero and two above a bank's Long-Term IDR reflecting the beneficial treatment of covered bonds and secured debt in countries with advanced bank resolution regimes in place, stemming from the exemption of these securities from bail-in upon the default of an issuer on its other debt. This must not cause enforcement of the recourse against the cover pool. A pre-condition for assigning this uplift is that the risk of undercollateralisation is sufficiently low at the point of resolution.
Payment continuity uplift (PCU)	Number of notches between zero and eight corresponding to the maximum difference between the bank's Long-Term IDR, adjusted for any IDR uplift, and the covered bond rating on a PD basis, reflecting Fitch's assessment of the likelihood of a covered bond defaulting immediately after enforcement of recourse to the cover pool.
Recovery uplift	Number of notches between zero and three above the covered bonds tested rating on a PD basis. The degree of notching depends on OC relied upon.

Overcollateralisation and Components

Overcollateralisation (OC)	The amount of cover assets exceeding the amount of covered bonds outstanding and expressed as a percentage of the covered bonds outstanding, which serves as the principal form of credit enhancement for covered bondholders.
Relied upon OC	The amount of OC Fitch expects to be available to covered bondholders following issuer default which is generally based on the contractually committed amount, public statements, the minimum OC maintained over the preceding 12 months or the minimum imposed by the applicable legislative framework.
Breakeven OC for a given rating	The minimum OC that corresponds to the covered bonds rating. It is the lowest protection that supports timely payment of covered bonds in a stress scenario associated with the tested rating on a PD basis and meets the recovery given default expectation compatible with the assigned recovery uplift.
ALM loss component	Impact on the break-even OC for the rating of maturity, interest rate and FX mismatches.
Credit loss component	Impact on the breakeven OC for the rating of the cover pool's expected loss in a given stress scenario.

Abbreviations

CVB	Covered Bonds
PS	Public Sector
LT IDR	Long Term Issuer Default Rating
IDR	Issuer Default Rating
PCU	Payment Continuity Uplift
PD	Probability of default
WAL	Weighted Average Life
OC	Overcollateralisation
NA	Not Applicable
WA	Weighted Average
WAFF	Weighted Average Foreclosure Frequency
WARR	Weighted Average Recovery Rate
EL	Expected Loss

Appendix II: IDR Uplift, Payment Continuity Uplift and Recovery Uplift

IDR Uplift: Up to Two Notches

Fitch assigns an IDR uplift of up to two notches to public-sector covered bond programmes in Germany. Fitch understands that Germany has adopted an advanced bank resolution regime from which fully collateralised covered bonds and secured debt are exempt. The BRRD has been implemented in Germany by the 'Sanierungs- und Abwicklungsgesetz'. The agency also understands that resolution is not likely to result in direct enforcement of the recourse against the cover pool.

Fitch assigns a IDR uplift of two notches to Unicredit as the IDR is driven by the bank's standalone power, expressed as the Viability Ratings (VR). The two-notch IDR uplift for Helaba reflects the fact that the bank's IDR is based on its participation in S-Finanzgruppe Hessen Thuringen's (SFG-HT; A+/Stable/F1+) mutual support scheme. This compares with an IDR uplift of one notch for BayernLB and SaarLB, whose IDR is support-driven. Both issuers are partly owned by the savings banks group, which drives the support rating that is higher than respective VRs of those banks. The one notch lower uplift reflects the uncertainty in scenarios above the issuer bank's VR.

The IDR adjusted by the IDR uplift represents the floor for the rating of the covered bonds.

Issuer	BayernLB	Helaba	Unicredit	SaarLB
IDR	A-/Stable	A+/Stable	BBB+/Negative	A-/Stable
VR	bbb+	-	bbb+	bb+
IDR Uplift (notches)	1	2	2	1
CVB Rating Floor	A	AA	A	A

Source: Fitch

Payment Continuity Uplift: Five Notches

Fitch considers that covered bond payments may continue to be met without any interruption once recourse to the cover pool has been enforced, providing there are satisfactory liquidity protection mechanisms. We view liquidity as the main driver of the smooth transition from the issuer to the cover pool as the source of covered bonds interest and principal payments and therefore normally the main determinant of the Payment Continuity Uplift (PCU), unless other risks constitute a greater threat than usual to payment continuity.

Fitch has assigned these programmes a PCU of five notches due to the principal and interest payment protection mechanism, notably the inclusion of highly liquid assets covering potential cash shortfalls in the next 180 days. Fitch does not consider that other PCU components, "Asset Segregation" and "Alternative Risk Management", present a high risk to payment continuity.

Issuer	BayernLB	Helaba	Unicredit	SaarLB
PCU (notches)	5	5	5	5
Max. Rating on PD basis	AAA	AAA	AAA	AAA

Source: Fitch

Recovery Uplift: Eligible for Two Notches

All German public-sector Pfandbriefe in this review are eligible for a recovery uplift of two notches as we expect the programmes to benefit from outstanding recoveries. This is because the OC that Fitch relies on in its analysis offsets the stressed credit loss in the 'AAA' rating scenario and we did not identify any material risks to these recovery expectations.

Issuer	BayernLB	Helaba	Unicredit	SaarLB
Potential Recovery Uplift (notches)	2	2	2	2
'AAA' Credit Loss (%)	6.8	6.5	6.8	27.7
OC relied upon (%)	27.2	25.2	22.8	36.4

Source: Fitch

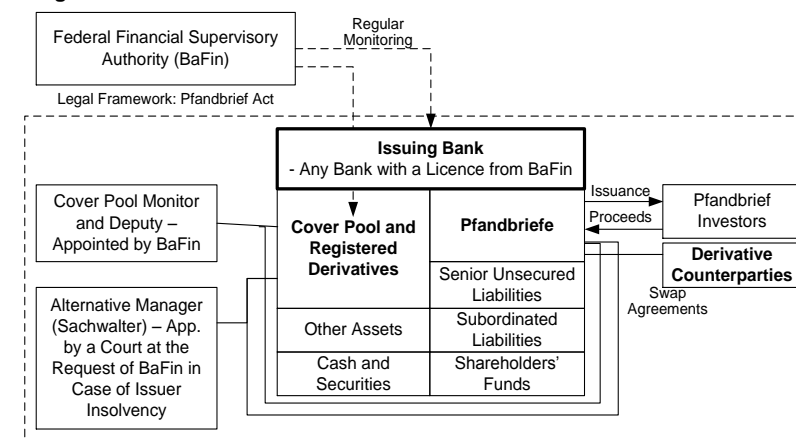
Appendix III: Legislative Pfandbriefe Framework

Main Characteristics of German Legislative Pfandbriefe, German Pfandbrief Act (January 2015):

Issuers	Financial institutions with a licence to issue Pfandbriefe.
Supervision	German Federal Financial Supervisory Authority (BaFin).
Mortgage collateral	<ul style="list-style-type: none"> Residential or commercial mortgages; Geographical scope to the EU/EEA, Switzerland, the US, Canada, Japan, Australia, New Zealand or Singapore; Up to 20% of the outstanding Pfandbriefe can be substitute assets.
Loan-to-value limits for mortgage loans	60% LTV based on the mortgage lending value.
Public sector assets	<ul style="list-style-type: none"> Geographical scope to the EU/EEA; For assets from the US, Canada, Japan and Switzerland, the debtor must be assigned to credit quality step 1; Up to 10% of the outstanding Pfandbriefe can be substitute assets.
Transfer of assets	Integrated template, assets remain on the issuer's balance sheet.
Cover register	Cover register is required for the respective cover pool.
Cover pool monitor	Independent cover pool monitor (Treuhänder) appointed by BaFin.
Alternative manager (Sachwalter)	A dedicated alternative manager would take over the management of the cover assets and outstanding liabilities post issuer default. He would be appointed by a court at the request of BaFin, at the latest upon the issuer's insolvency.
Minimum OC	<ul style="list-style-type: none"> 0% nominal value; 2% stressed net present value (NPV). The NPV calculation is detailed in a specific net present value regulation (Barwertverordnung) including procedures, stress scenarios and risk models. The approach can be static or dynamic, or based on internal models.
Treatment of swap counterparties	Derivative counterparties rank pari-passu with the claims of the covered bond holders.
Pfandbriefbank with limited business activity	The cover pool constitutes an insolvency-free asset and continues to exist post issuer default as a PBwLBA to ensure the timely payment of the liability obligations. The PBwLBA would be managed by the alternative manager.

Source: Pfandbrief Act, Fitch

Diagram of a Pfandbrief Issuance



Source: Fitch

Appendix IV: List of Outstanding Pfandbriefe - BayernLB

ISIN	Maturity date	Currency	Original Amount (m)	ISIN	Maturity date	Currency	Original Amount (m)
DE000BLB5G89	25/01/2019	EUR	250	DE000BLB2LQ0	28/05/2021	EUR	200
DE000BLB5QB4	01/04/2019	EUR	200	XS0945593837	21/06/2021	USD	16
XS1589514014	03/04/2019	GBP	5	DE000BLB6H61	09/07/2021	EUR	500
DE000BLB03X4	24/07/2019	EUR	350	DE000BLB2G09	23/07/2021	EUR	200
DE000BLB0524	12/08/2019	EUR	200	DE000BLB2HS4	16/08/2021	EUR	200
DE000BLB1FE0	02/09/2019	EUR	200	DE000BLB25P3	13/09/2021	EUR	200
DE000BLB5QF5	02/09/2019	EUR	200	DE000BLB2FV2	15/09/2021	EUR	200
DE000BLB2L36	12/11/2019	EUR	200	DE000BLB5BU6	13/12/2021	EUR	250
XS1558143498	31/01/2020	GBP	6	DE000BLB0TR5	15/12/2021	EUR	100
XS1766704958	06/02/2020	GBP	287	XS1551726737	20/12/2021	GBP	289
XS1785479921	02/03/2020	USD	81	DE000BLB4YF2	20/12/2021	EUR	40
DE000BLB6224	22/04/2020	EUR	200	DE000BLB2JB6	27/12/2021	EUR	250
DE000BLB2SC5	29/04/2020	EUR	200	DE000BLB2QB1	25/02/2022	EUR	200
DE000BLB2UH0	30/06/2020	EUR	200	DE000BLB03H7	14/04/2022	EUR	125
DE000BLB2F83	03/07/2020	EUR	100	DE000BLB51D5	27/04/2022	EUR	250
DE000BLB2GZ1	23/07/2020	EUR	200	DE000BLB6H38	11/07/2022	EUR	500
DE000BLB2VC9	22/09/2020	EUR	250	DE000BLB2VB1	22/07/2022	EUR	250
DE000BLB2MM7	26/11/2020	EUR	200	DE000BLB2V59	25/08/2022	EUR	200
DE000BLB7AA6	11/12/2020	EUR	200	DE000BLB2H99	26/08/2022	EUR	200
XS1922148744	14/12/2020	USD	133	DE000BLB2520	23/02/2023	EUR	200
XS1935251642	15/01/2021	USD	218	DE000BLB6H46	18/04/2023	EUR	500
DE000BLB2F59	15/01/2021	EUR	200	DE000BLB03J3	18/04/2023	EUR	100

Appendix IV: List of Outstanding Pfandbriefe – BayernLB (2)

ISIN	Maturity date	Currency	Original Amount (m)	ISIN	Maturity date	Currency	Original Amount (m)
DE000BLB2TY7	16/06/2023	EUR	200	DE000BLB4S78	18/02/2027	EUR	100
DE000BLB2H24	23/08/2023	EUR	200	DE000BLB6JE1	19/07/2027	EUR	500
DE000BLB2V67	25/08/2023	EUR	200	DE000BLB12G0	02/12/2027	EUR	10
DE000BLB2JD2	30/08/2023	EUR	200	DE000BLB6JC5	19/01/2028	EUR	650
DE000BLB2LF3	23/10/2023	EUR	200	DE000BLB5GT7	02/05/2028	EUR	20
DE000BLB4YG0	20/12/2023	EUR	100	DE000BLB4Q39	22/09/2031	EUR	100
DE000BLB6H53	08/04/2024	EUR	500	DE000BLB3Z54	18/03/2036	EUR	25
DE000BLB2TQ3	06/06/2024	EUR	200	XS1555163218	26/01/2037	GBP	103
DE000BLB2538	24/06/2024	EUR	200				
DE000BLB2WB9	29/08/2024	EUR	500				
DE000BLB2579	26/09/2024	EUR	100				
DE000BLB29P5	04/11/2024	EUR	520				
DE000BLB2850	12/02/2025	EUR	300				
DE000BLB6JD3	19/03/2025	EUR	500				
DE000BLB3B94	13/05/2025	EUR	200				
DE000BLB6H95	10/09/2025	EUR	500				
DE000BLB12E5	02/12/2025	EUR	20				
DE000BLB4VD3	12/01/2026	EUR	250				
DE000BLB6JB7	20/01/2026	EUR	500				
DE000BLB5FD3	22/04/2026	EUR	50				
DE000BLB35M9	05/08/2026	EUR	500				
DE000BLB12F2	02/12/2026	EUR	40				

Note: Only public placements with ISINs are displayed above

Appendix IV: List of Outstanding Pfandbriefe – Helaba

ISIN	Maturity date	Currency	Original Amount (m)	ISIN	Maturity date	Currency	Original Amount (m)
DE0002677747	18/01/2019	EUR	100	DE000WLB29J4	25/11/2020	EUR	15
XS1558424153	31/01/2019	EUR	100	DE000HLB1C84	28/12/2020	EUR	100
XS1036039433	25/02/2019	EUR	1,000	DE000HLB2JK1	23/03/2021	EUR	250
DE000HLB2CB5	05/03/2019	EUR	250	DE000HLB4JU6	30/04/2021	EUR	100
DE000WLB9AC3	19/03/2019	EUR	5	XS1071847245	27/05/2021	EUR	1,000
DE000WLB9AF6	08/04/2019	EUR	10	DE000WLB4240	02/08/2021	EUR	5
DE000HLB4J01	23/04/2019	EUR	100	DE000HLB2K18	24/11/2021	EUR	100
XS0775280166	26/04/2019	EUR	1,000	DE000WLB44U0	11/01/2022	EUR	5
DE000WLB9BN8	30/04/2019	EUR	20	DE000HLB1A52	21/01/2022	EUR	250
DE000WLB9CY3	12/06/2019	EUR	20	DE000HLB4JR2	28/01/2022	EUR	100
DE000WLB29F2	01/07/2019	EUR	100	DE000HLB2HF5	11/02/2022	EUR	250
DE000HLB0P07	23/08/2019	EUR	250	DE000HLB2CG4	22/03/2022	EUR	250
XS1127689807	28/10/2019	USD	236	DE000HLB4LZ1	14/04/2022	EUR	25
DE000HLB2HU4	20/01/2020	EUR	250	DE000HLB3E80	08/06/2022	EUR	25
DE000WLB28H0	24/02/2020	EUR	5	DE000HLB2CK6	17/06/2022	EUR	250
XS1196862889	04/03/2020	EUR	1,000	XS1936190021	18/07/2022	EUR	1,500
DE000HLB0P23	12/03/2020	EUR	100	DE000HLB2L33	01/09/2022	EUR	5
DE000HLB3M56	20/07/2020	EUR	250	DE000HLB4JF7	12/09/2022	EUR	100
DE000HLB0TY5	26/08/2020	EUR	100	DE000HLB0P64	17/10/2022	EUR	100
DE000HLB4JS0	28/08/2020	EUR	100	XS1382379318	21/11/2022	EUR	1,000
DE000WLB29G0	17/09/2020	EUR	3	DE000HLB2ND8	30/11/2022	EUR	100
XS1127630231	28/10/2020	USD	236	DE000HLB0P49	28/03/2023	EUR	100

Appendix IV: List of Outstanding Pfandbriefe – Helaba (2)

ISIN	Maturity date	Currency	Original Amount (m)
XS0946693834	26/06/2023	EUR	1,000
DE000HLB4JN1	24/07/2023	EUR	10
DE000HLB0P98	08/08/2023	EUR	200
DE000HLB4JE0	06/09/2023	EUR	100
DE000HLB4JK7	30/10/2023	EUR	100
DE000HLB4JL5	22/01/2024	EUR	10
DE000HLB4JM3	22/01/2024	EUR	200
DE000HLB4JP6	24/01/2024	EUR	10
DE000HLB4JT8	05/02/2024	EUR	5
DE000HLB0AN8	14/03/2024	EUR	70
DE000HLB4J76	09/07/2024	EUR	15
DE000HLB1JX6	02/09/2024	EUR	100
DE000HLB0AP3	14/03/2025	EUR	20
DE000HLB1BZ8	12/01/2026	EUR	250
XS1936186425	16/01/2026	EUR	750
DE000HLB1C27	22/07/2026	EUR	250
DE000HLB2LC4	11/01/2027	EUR	250
XS1548773982	12/01/2027	EUR	1,000
DE000WLB8ET1	12/10/2027	EUR	50
DE000HLB2NE6	30/11/2027	EUR	100
XS1793273092	20/03/2028	EUR	500
DE000HLB0P56	26/04/2028	EUR	100

ISIN	Maturity date	Currency	Original Amount (m)
DE0002677572	28/07/2028	DEM	102
DE000HLB4J84	28/12/2029	EUR	50
DE000HLB1C43	11/08/2031	EUR	250
DE000HLB4U71	19/09/2033	EUR	100
DE000HLB4VB1	04/10/2033	EUR	100
DE000HLB4U48	17/09/2038	EUR	50
XS1587900843	28/03/2042	EUR	80

Note: Only public placements with ISINs are displayed above. There are further 402 Bearer instruments ("Inhaberpapiere") with a total volume of EUR 4.588bn outstanding.

Appendix IV: List of Outstanding Pfandbriefe – Unicredit

ISIN	Maturity date	Currency	Original Amount (m)
DE000HV2AFS2	23/03/2019	EUR	125
DE000HV2ABF8	17/08/2020	EUR	20
DE000HV2AL90	17/08/2020	EUR	500
DE000HV2AL66	17/08/2020	EUR	9
DE0002515533	07/09/2020	EUR	25
DE000HV2AQM2	27/06/2021	EUR	250
DE000HV2APV5	30/12/2021	EUR	20
DE000HV2AP21	30/12/2021	EUR	13
DE000HV2APT9	08/02/2046	EUR	200

Note: Only public placements with ISINs are displayed above

Appendix IV: List of Outstanding Pfandbriefe - SaarLB

ISIN	Maturity date	Currency	Original Amount (m)	ISIN	Maturity date	Currency	Original Amount (m)
DE000SLB3966	26/04/2019	EUR	25	DE000SLB4147	05/02/2025	EUR	25
DE000SLB3214	31/05/2019	EUR	25	DE000SLB4154	07/03/2025	EUR	25
DE000SLB3248	16/08/2019	EUR	25	DE000SLB4014	11/07/2025	EUR	25
DE000SLB3933	14/10/2019	EUR	25	DE000SLB3974	21/07/2025	EUR	25
DE000SLB4063	09/04/2020	EUR	25	DE000SLB3958	30/10/2025	EUR	40
DE000SLB3925	25/06/2020	EUR	25	DE000SLB4121	13/11/2025	EUR	25
DE000SLB3990	14/09/2020	EUR	35	DE000SLB4022	12/01/2026	EUR	35
DE000SLB3941	13/10/2020	EUR	25	DE000SLB3917	15/05/2026	EUR	20
DE000SLB4113	13/11/2020	EUR	25	DE000SLB4097	04/09/2026	EUR	25
DE000SLB4162	30/08/2021	EUR	50	DE000SLB4170	20/11/2028	EUR	13
DE000SLB4105	13/09/2021	EUR	25	DE000SLB4139	24/06/2033	EUR	25
DE000SLB3255	11/10/2021	EUR	25				
DE000SLB4089	17/11/2021	EUR	20				
DE000SLB4071	19/11/2021	EUR	20				
DE000SLB3297	26/01/2022	EUR	25				
DE000SLB4055	24/03/2022	EUR	25				
DE000SLB4030	09/06/2022	EUR	25				
DE000SLB4048	13/03/2023	EUR	10				
DE000SLB3982	31/08/2023	EUR	25				
DE000SLB3271	12/12/2023	EUR	25				
DE000SLB3263	16/04/2024	EUR	50				
DE000SLB4006	12/09/2024	EUR	40				

Note: Only public placements with ISINs are displayed above

Related Research and Related Criteria

Related Research – CVB specific:

- [Fitch 2019 Outlook: Covered Bonds \(November 2018\)](#)
- [Covered Bonds Surveillance Snapshot \(October 2018\)](#)
- [Covered Bonds Surveillance Snapshot – Excel File \(October 2018\)](#)
- [Global Housing and Mortgage Outlook - 2019 \(January 2019\)](#)
- [‘B’ Portfolio Loss Rates for Covered Bonds \(September 2018\)](#)

Related Research – Programme Specific:

BayernLB

- Issuer: [Fitch Affirms Bayerische Landesbank's IDR at 'A-/Stable; Upgrades VR to 'bbb+' \(April 2018\)](#)
- Pfandbriefe: [Fitch Affirms BayernLB, Helaba and HVB Public Sector Pfandbriefe at 'AAA'; Outlook Stable \(December 2018\)](#)

Helaba

- Issuer: [Fitch Affirms S - Finanzgruppe Hessen Thuringen and Helaba at 'A+/Stable \(November 2018\)](#)
- Pfandbriefe: [Fitch Affirms BayernLB, Helaba and HVB Public Sector Pfandbriefe at 'AAA'; Outlook Stable \(December 2018\)](#)

Unicredit

- Issuer: [Fitch Affirms UniCredit Bank AG at 'BBB+'; Outlook Negative \(December 2018\)](#)
- Pfandbriefe: [Fitch Affirms BayernLB, Helaba and HVB Public Sector Pfandbriefe at 'AAA'; Outlook Stable \(December 2018\)](#)

SaarLB

- Issuer: [Fitch Affirms Landesbank Saar at 'A-/Stable; VR at 'bb+' \(April 2018\)](#)
- Pfandbriefe: [Fitch Rates Landesbank Saar's Public Sector Pfandbriefe 'AAA', Outlook Stable \(June 2018\)](#)

Related Criteria:

[Bank Rating Criteria \(12 October 2018\)](#)

[Covered Bonds Rating Criteria \(11 January 2019\)](#)

[Covered Bonds and CDOs Public Entities' Asset Analysis Criteria \(9 November 2018\)](#)

[Fitch's Interest Rate Stress Assumptions for Structured Finance and Covered Bonds - Excel File \(2 February 2018\)](#)

[Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum \(1 August 2018\)](#)

[Structured Finance and Covered Bonds Country Risk Rating Criteria \(23 October 2018\)](#)

[Structured Finance and Covered Bonds Interest Rate Stresses Rating Criteria \(2 February 2018\)](#)

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