Realkredit Danmark A/S – Update

Danish Covered Bonds – Performance Update on Capital Centre S and Capital Centre T

Rating rationale (summary)

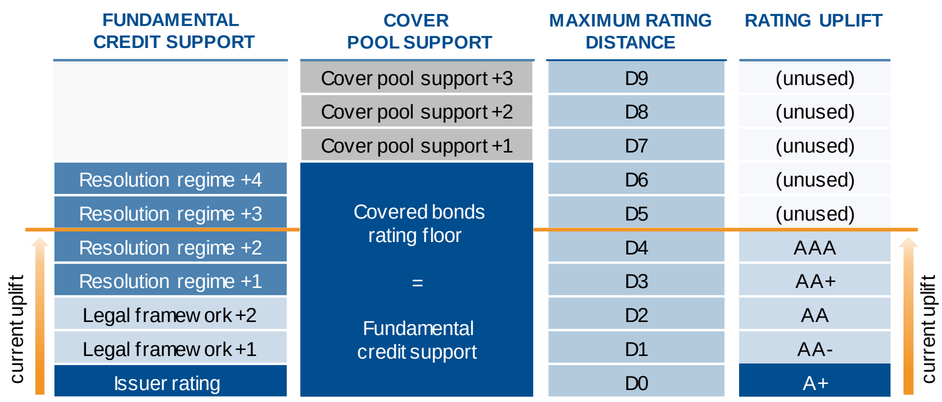
The AAA ratings with a Stable Outlook on the Danish mortgage covered bonds (særligt dækkede realkreditobligationer, SDROs) issued out of capital centres S and T of Realkredit Danmark A/S (RD) are based on the issuer's rating, enhanced by the programmes' fundamental credit support.

Cut-off date	CC[1]	Eligible cover pool	Cover asset type	Covered bonds[2]	Rating/Outlook
31 Mar 2019	S	DKK 274.7bn	Residential and commercial mortgage loans	DKK 256.9bn	AAA/Stable
31 Mar 2019	T	DKK 490.3bn		DKK 459.8bn	AAA/Stable

[1]. Capital centres S & T; [2]. særligt dækkede realkreditobligationer (SDROs) – Danish mortgage covered bonds issued under the strict balance principle under the mortgage act.

Fundamental credit support is the primary rating driver for both capital centres. It provides six notches of uplift above the issuer rating. Only four notches are needed to raise the covered bond ratings to the highest achievable level. The cover pool analysis provides further stability.

The cover pool support benefits from the strong credit characteristics of both capital centres. In particular, the balance principle almost fully eliminates market risks and asset-liability mismatches.



Stable Outlook

The Stable Outlook on the covered bonds reflects the rating buffer from our fundamental credit support analysis, which shields the covered bond ratings against a multiple-notch deterioration of issuer rating.

Changes since the last performance update

During 2018, we observed no major changes in the cover pool and the covered bonds' composition. The Danish housing market grew moderately, and affordability remains strong which is also reflected in decreasing loan to values for both capital centres.

The change in RD's rating Outlook to Negative in September 2018 reflects the considerable negative credit connotations for its parent, Danske Bank A/S, relating to ongoing investigations regarding alleged money laundering by its Estonian branch. RD also suffered a reputational loss, resulting in a decline of new business in recent months. None of these factors impact the covered bond ratings due to the strong buffer provided by fundamental credit support.

Ratings & Outlook

Issuer rating	**A+/ S-1+**
Outlook	Negative
Last rating action	Confirmed
Last rating action date	27.09.2018
Covered bond rating	**AAA**
Outlook	Stable
Rating action	Affirmed
Last rating action date	27.08.2019

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Related Research

Covered Bond Rating Report: Danish Mortgage-Covered Bonds – Capital Centre S & T – 29 August 2018

Updated Analysis of Realkredit Danmark 21 August 2019

Scope confirms Realkredit Danmark's A+ Issuer Rating; Outlook revised to Negative – 27 September 2018

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The issuer

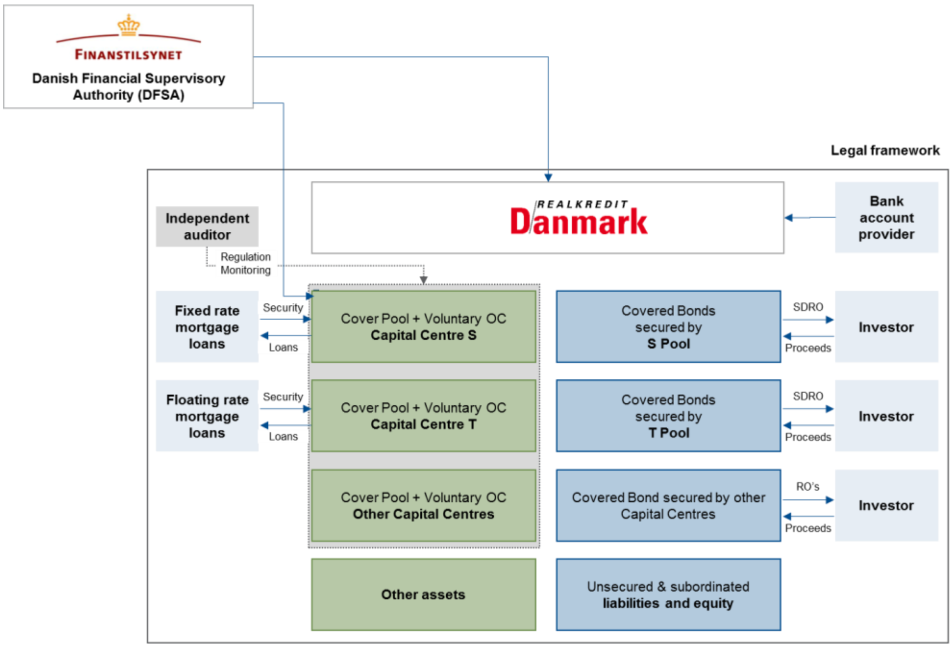
RD's issuer rating mirrors that of its parent, Danske Bank

We have assigned an A+ rating with a Negative Outlook to RD, the issuer of the rated mortgage covered bonds.

RD is the second-largest Danish mortgage bank, with a 27.1% market share of the domestic mortgage loan stock as of 1H19. It is a core subsidiary of and strongly integrated into Denmark's largest bank, Danske Bank A/S. The issuer also exhibits sound and reassuring standalone credit fundamentals. For further details on the bank's credit analysis see www.scoperatings.com.

Covered bond structure

Figure 1: On-balance sheet issuance structure



Source: RKD and Scope

RD operates as a specialised mortgage bank, originating the majority of its domestic mortgage loans within Danske Group. The loans are financed using SDROs, with issuances governed by the Danish mortgage act and supervised by Denmark's Financial Supervisory Authority (Finanstilsynet).

Fundamental credit support analysis

Full fundamental credit support of six notches

Ratings for the SDROs issued out of capital centres S and T are primarily supported by a six-notch credit uplift provided by the fundamental legal and resolution framework for Danish covered bonds. This analysis enhances the ratings to their highest achievable level (AAA). The cover pool is therefore not a rating driver.

Of the six notches of credit differentiation, two notches result from our legal framework analysis. This is driven by the benefits afforded by Denmark's covered bond framework, which we consider one of Europe's strongest, in particular due to the strict 'balance principle' applicable to SDROs. The other four notches result from our resolution-regime analysis. They reflect the programmes' preferential status and exclusion from bail-in, our view on the resolvability and likely maintenance of RD upon a hypothetical regulatory intervention, and the very high importance of covered bonds in Denmark, with a strong stakeholder group maintaining confidence in and a high credit quality of the covered bonds. For more information see also our related research.

Pool characteristics

Capital centre	S	T
Balance (DKK bn)	274.7	490.3
Residential (%)	71.0	56.3
Commercial (%)	22.5	37.5
Substitute (%)	6.5	6.2

General information

Capital centre	S	T
No. of loans	168,039	252,343
Avg. loan size (DKK '000s)	1,635	1,943
Top 10 (%)	1.1	1.6
Remaining life (years)	24	23
LTV (%)	60.3	60.8

Interest rate type (%)

Capital centre	S	T
Floating	2.3	100
Fixed	97.7	0

Repayment type (%)

Capital centre	S	T
Bullet	24.6	53.0
Amortising	75.4	47.0

Cover pool analysis

The highest ratings are already achieved via the fundamental credit support of up to six notches. As such, cover pool support is not a rating driver, although we determine whether it provides further rating stability. Detailed data provided by the issuer allow us to perform a full analysis. We conclude that cover pool support stabilises the current AAA ratings, even upon a downgrade of the issuer to BBB-. Accordingly, an additional three-notch cover pool-based uplift would be warranted for both programmes if the current level of overcollateralisation is maintained.

Cover pool composition

Both capital centres are secured predominantly by Danish commercial and residential mortgage loans denominated in Danish kroner. As of March 2019, only 1bps of mortgage loans in capital centre S are denominated in euro. For capital centre T, 3.0% is denominated in Swedish kroner, 2.1% in euro, and 1.0% in Norwegian kroner.

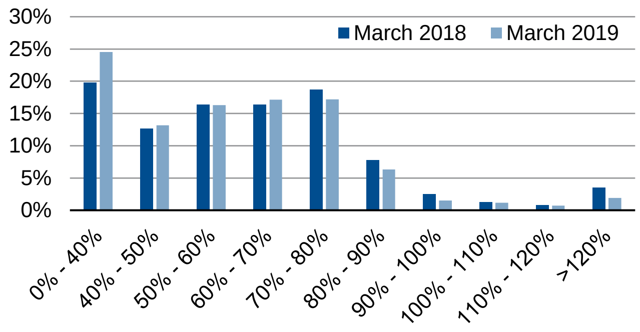
Both pools are highly granular with 168,039 mortgage loans for capital centre S and 252,343 for capital centre T as of March 2019. The top 10 borrowers account for 1.1% in capital centre S and 1.6% in capital centre T, respectively. Driven by the size and granularity the pools' attributes have remained broadly stable, with only minor variations since our analysis from one year ago.

The main difference between the two capital centres is the fixing of interest rates: 97.7% of mortgage loans in capital centre S are fixed for life; all loans in capital centre T are floating-rate and reset loans, with most having reset periods of five years.

The share of commercial loans in capital centre S is also lower than in capital centre T. Mortgage loans with a residential purpose (including private rental residential, cooperative housing and subsidised housing) account for 88% in capital centre S and 72% in capital centre T. Both have not changed since last year's analysis. The share of secondary and holiday homes is small and accounts for less than 3% in both capital centres. Commercial loans relate to i) office and retail, which represent 4.9% in capital centre S and 15.1% in capital centre T; ii) agriculture (S: 3.5%; T: 7.8%); iii) hotels and leisure (S: 2.3%; T: 3.4%); and iv) industrial (S: 1%; T: 1.8%). Portfolio composition has remained stable since last year's analysis.

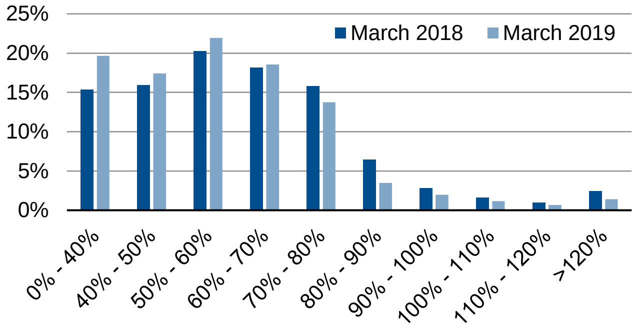
The average indexed loan-to-value ratio (LTV) is similar: 60.3% (from 61.1%) for capital centre S and 60.8% (from 62.9%) for capital centre T. These levels would provide strong protection against credit losses upon a borrower default. The decrease in LTV since last year is predominantly driven by the increased indexed market values, reflecting the rise in the country's property prices by 4.2% in 2018.

Figure 2: LTV distribution (capital centre S)



Source: Scope Ratings, Realkredit Danmark

Figure 3: LTV distribution (capital centre T)



Source: Scope Ratings, Realkredit Danmark

Asset risk analysis

The credit quality of the two granular capital centres remains strong and is generally unchanged compared to last year's analysis, with the exception of improved recovery rates, driven by a combination of increased market values, decreased LTV and the our revisions to security value haircuts.

Our projection of default on mortgage loans uses an inverse Gaussian distribution, based on available credit performance data provided by the bank (in particular, vintage and loss data) and benchmarking. Due to the stable asset performance, we have maintained our assumptions of an effective weighted average lifetime mean default rate of 3.1% for capital centre S (applying a cure rate of 62%) and 2.6% for capital centre T (cure rate of 64%).

The lower losses for capital centre T, despite the higher share of commercial loans, are driven by its higher seasoning and its higher cure rates for commercial loans.

We have assumed a volatility of defaults (weighted average coefficient of variation) of 50% for capital centre S and 75% for capital centre T. Assumptions for capital centre T incorporate a potential increase in borrower defaults if margins increased by up to 500bps (in the case a covered bond fails to be refinanced). Capital centre S is not exposed to refinancing risk because loans have a fixed rate for life.

Strong credit quality translates into mean loss rates of well below one per cent for both

Our estimated weighted average recovery rates for capital centre S range from 93.0% (from 89.2%) for the base case to 75.3% (from 72.5%) for the most stressful scenario; for capital centre T, the respective figures range from 93.5% (from 87.9%) and 75.3% (from 69.3%). This translates into a mean loss rate for capital centre S of 0.22% in the base case and 0.77% in the most stressful scenario; for capital centre T, these were 0.17% and 0.67%, respectively.

Our projections of default on substitute assets follows a non-parametric distribution calculated using a Monte Carlo analysis.

Cash flow risk analysis

The overcollateralisation supporting the AAA ratings are 0% for both pools and are based on fundamental support only. Consequently, cover pool support is not a rating driver.

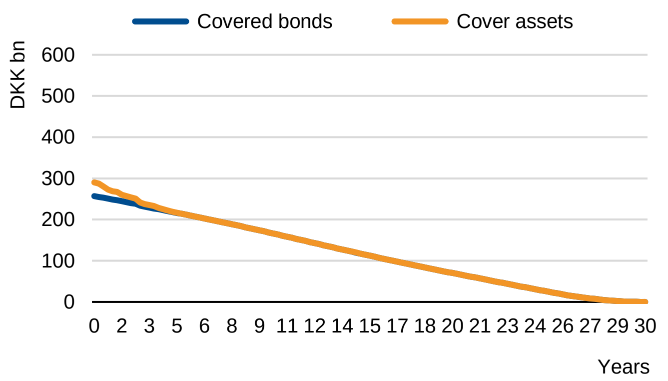
To test the stability of the ratings we have established the overcollateralisation levels needed to support the current rating uplift. We performed a full analysis supported by the detailed data provided by RD. Our conclusion is that cover pool support stabilises the current AAA ratings, even upon the bank's downgrade by up to five notches to BBB-.

The cover pool is mainly exposed to credit risk, which, however, remains low, reflecting the strong credit quality of the two pools. It also reflects the high prepayments, assumed at up to 20% annually. While this reduces available excess spread, it also reduces the lifetime of the assets and thereby the allocation of defaults.

Aided by the balance principle, market risks mainly result from minimum regulatory and voluntary overcollateralisation but are negligible in light of their materiality to the total balance and remaining term.

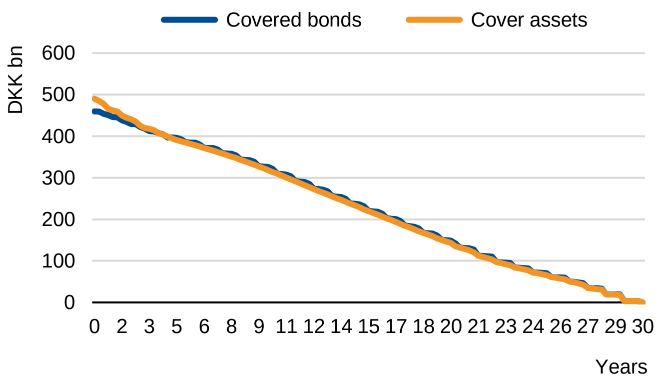
Asset sales due to asset-liability mismatches from remaining hard-bullet bonds do not constitute a risk driver because prepayments result in sufficient available cash. Around 3.3% (from 8.5%) of bonds in capital centre T are grandfathered hard-bullet bonds as they were issued before the March 2014 legal amendment introducing soft bullets. Around 1.2% (from 1.7%) of bonds in capital centre S were issued as hard-bullet.

Figure 4: Amortisation profile, capital centre S



Source: Scope Ratings, Realkredit

Figure 5: Amortisation profile, capital centre T



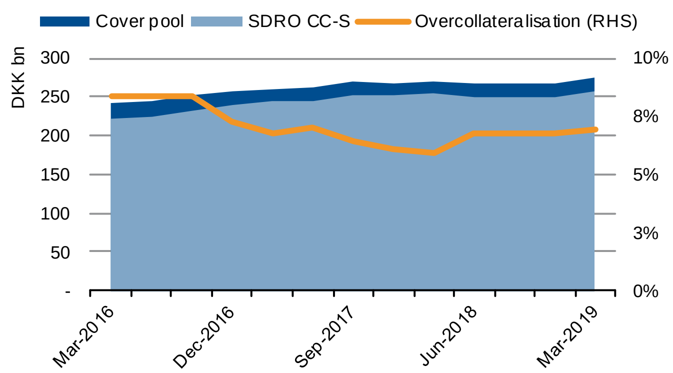
Source: Scope Ratings, Realkredit

Availability of overcollateralisation

The covered bond ratings are wholly supported by fundamental factors and therefore do not rely on the issuer's ability and willingness to provide overcollateralisation above the legal minimum. The current ratings allow us to fully account for the provided overcollateralisation, however.

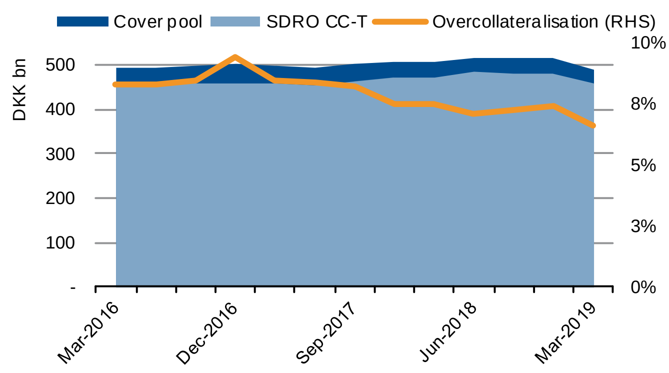
We are not aware of plans that would significantly change the risk profile or reduce available overcollateralisation to levels that would no longer support the current rating uplift.

Figure 6: Overcollateralisation, capital centre S



Source: Scope Ratings, Realkredit

Figure 7: Overcollateralisation, capital centre T



Source: Scope Ratings, Realkredit

Other risk considerations

Main counterparty exposure relates to the issuer

The rated covered bonds have counterparty exposures to the issuer, as well as to the issuer's parent as loan originator, servicer, bank account provider and paying agent. Replacement mechanisms exist to shield against a rating deterioration of the account bank provider whilst exposure to the other counterparties remain unshielded. However, if a regulator were to intervene, we believe the strong alignment of interests between the bank and the covered bond holders would prevent any negative impact. The bank's risk management process regularly monitors accounts to ensure remedial actions can be implemented early on. We also take a positive view that most collections are done via direct debit, allowing for a relatively swift redirection of payments if needed.

Country risk not affecting the ratings

Sovereign risk does not limit the ratings of RD's mortgage-covered bonds. We believe the risks of an institutional framework meltdown, legal insecurity or currency-convertibility problems are currently remote.

No rating impact to multi-notch downgrade of issuer rating

The current covered bond ratings are not sensitive to a one-notch downgrade of the issuer rating. We performed a full analysis, supported by detailed data provided by RD, concluding that cover pool support stabilises the current AAA ratings, even upon a downgrade of RD by up to five notches to BBB-.

No impact from energy-efficient collateral or green bond issuance

RD issues green covered bonds out of its capital centre T. Such bonds are issued for the purpose of financing or refinancing green mortgages as defined in Danske Bank Group's Green Bond Framework. The data provided to date do not allow a separate analysis of the performance and liquidity of green collateral.

RD has provided us with both public and confidential information on the capital centres' composition, including asset performance and vintage information. Based on the detailed asset and liability composition, we have reconciled the aggregated cash flow profiles provided by the bank. This includes detailed loan-level data with the relevant credit characteristics of the mortgage segment.

Appendix: Summary of covered bond characteristics

Reporting date	31-Mar-19	31-Mar-18	31-Mar-19	31-Mar-18
Issuer name	Realkredit Danmark A/S	Realkredit Danmark A/S	Realkredit Danmark A/S	Realkredit Danmark A/S
Capital centre	S	S	T	T
Country	Denmark	Denmark	Denmark	Denmark
Covered bond name	særligt dækkede realkreditobligationer (SDROs)	særligt dækkede realkreditobligationer (SDROs)	særligt dækkede realkreditobligationer (SDROs)	særligt dækkede realkreditobligationer (SDROs)
	Danish mortgage covered bonds issued under the Danish mortgage act	Danish mortgage covered bonds issued under the Danish mortgage act	Danish mortgage covered bonds issued under the Danish mortgage act	Danish mortgage covered bonds issued under the Danish mortgage act
	(Specific balance principle)	(Specific balance principle)	(Specific balance principle)	(Specific balance principle)
Covered bond legal framework	Danish legal covered bond framework	Danish legal covered bond framework	Danish legal covered bond framework	Danish legal covered bond framework
Cover pool type	Mortgage loans	Mortgage loans	Mortgage loans	Mortgage loans
Composition[6]	Residential = 71%	Residential = 72.3%	Residential = 56.3%	Residential = 56.5%
	Commercial = 22.5%	Commercial = 22%	Commercial = 37.5%	Commercial = 36.6%
	Substitute = 6.5%	Substitute = 5.7%	Substitute = 6.1%	Substitute = 6.9%
Issuer rating[1]	A+	A+	A+	A+
Current covered bond rating	AAA/Stable	AAA/Stable	AAA/Stable	AAA/Stable
Covered bond maturity type[2]	Hard bullets	Hard bullets	Hard bullets	Hard bullets
Cover pool currencies	DKK (99.99%)	DKK (99.99%)	DKK (93.95%)	DKK (93.46%)
	EUR (0.01%)	EUR (0.01%)	EUR (2.09%)	EUR (2.59%)
			SEK (2.96%)	SEK (3.14%)
			NOK (1.01%)	NOK (0.8%)
Covered bond currencies	DKK (99.99%)	DKK (99.99%)	DKK (93.47%)	DKK (93.61%)
	EUR (0.01%)	EUR (0.01%)	EUR (1.99%)	EUR (2.79%)
			SEK (3.39%)	SEK (2.84%)
			NOK (1.16%)	NOK (0.77%)
Fundamental cover pool support	6	6	6	6
Maximum achievable covered bond uplift	9	9	9	9
Potential covered bond rating buffer	5	5	5	5
Cover pool (DKK m)	274,660	269,261	490,262	508,320
Thereof, substitute assets (DKK m)	17,741	15,049	30,483	35,335
Covered bonds (DKK m)	256,919	254,212	459,779	472,985
Current overcollateralisation/ Legal minimum overcollateralisation[3]	6.9% / 8%	5.9% / 8%	7.5% / 8%	7.5% / 8%
Overcollateralisation to support current rating	not applicable	not applicable	not applicable	not applicable
Overcollateralisation upon a one-notch issuer downgrade	not applicable	not applicable	not applicable	not applicable
Cover pool-supporting overcollateralisation to support current rating	0.00%	0.00%	0.00%	0.00%
Cover pool overcollateralisation upon a one-notch issuer downgrade	0.00%	0.00%	0.00%	0.00%
Weighted average life of assets	24 years	23 years	23 years	23 years
Weighted average life of liabilities[5]	26 years	25 years	2 years	3 years
Number of exposures	168,039	165,650	252,343	262,977
Average loan size (in DKK '000s)	1,635	1,625	1,943	1,933
Top-10 residential	0.99%	1.08%	0.74%	0.74%
Top-10 commercial	4.11%	4.30%	4.07%	4.18%
Interest rate type – assets	Floating 1.7%	Floating 2.4%	Floating 25.4%	Floating 24.2%
	Fixed 97.7%	Fixed 95.8%	Fixed 0%	Fixed 0%
	Other 0.6%	Other 2.9%	Other 74.6%	Other 75.8%
Interest rate type – liabilities (fixed/floating)	Floating 0.1%	Floating 1.4%	Floating 24.9%	Floating 21.2%
	Fixed 98.5%	Fixed 97%	Fixed 75.1%	Fixed 78.8%
	Other 1.3%	Other 1.6%	Other 0%	Other 0%
Weighted average LTV (whole loan LTV)	60.3%	61.1%	60.8%	62.9%

Geographic split (top 3)	Region Hovedstaden 42.1%	Region Hovedstaden 40.8%	Region Hovedstaden 45.6%	Region Hovedstaden 44.8%
	Region Sjælland 18.4%	Region Sjælland 18.3%	Region Sjælland 17.9%	Region Sjælland 18.2%
	Region Midtjylland 16.7%	Region Midtjylland 17.2%	Region Midtjylland 16.4%	Region Midtjylland 16.9%
Default measure	Inverse Gaussian/ Non-Parametric		Inverse Gaussian/ Non-Parametric	
Weighted average default rate (mortgage/substitute)	3.1%/ 0.09%	3.1%/ 0.11%	2.6%/ 0.09%	2.6%/ 0.11%
Weighted average coefficient of variation (mortgage/substitute)	50%/ 1449%	50%/ 1375%	75%/ 1438%	75%/ 1389%
Weighted average recovery assumption (D0/D9)[1]	93.0% / 75.3%	89.2% / 72.5%	93.5% / 74.4%	87.9% / 69.3%
Share of loans > three months in arrears (NPL)	0.13%	0.09%	0.40%	0.46%
Interest rate stresses (max./min.; currency-dependent)	-1 to 10%	-1 to 10%	-1 to 10%	-1 to 10%
FX stresses (max./min.; currency-dependent)	26% / -36%	26% / -36%	26% / -36%	26% / -36%
D9[4] liquidity premium	150bps/ 300bps	150bps/ 300bps	150bps/ 300bps	150bps/ 300bps
Servicing fee (mortgage)	27bps	27bps	32bps	32bps

[1] The issuer's rating Outlook is Negative

[2] Covered bonds issued after 2014 can be extended in case refinancing fails.

[3] 8% of legal overcollateralisation is calculated based on risk-weighted assets (RWA) and effectively results in a lower overcollateralisation level as long as the RWA is below 100% of the asset's nominal outstanding balance; Realkredit applies an internal rating-based risk weighting.

[4] D0 or D9 denote the stresses commensurate with the rating distance between the issuer rating and the covered bond ratings.

[5] Fixed-rate bonds for capital centre T are refinanced regularly, reflecting the reset cycles of the mortgage loans.

[6] Residential includes multi-family

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