

# Nykredit Bond Data

Nykredit Bond Data is a web-based application that allows investors and analysts easy access to information on covered bonds issued by Nykredit Group A/S.

## Data availability

Nykredit has made information on Nykredit and Totalkredit covered bonds available for download under Nykredit Bond Data at [nykredit.com/ir](http://nykredit.com/ir).

The data is available by ISIN in Excel format.

Nykredit Bond Data provides:

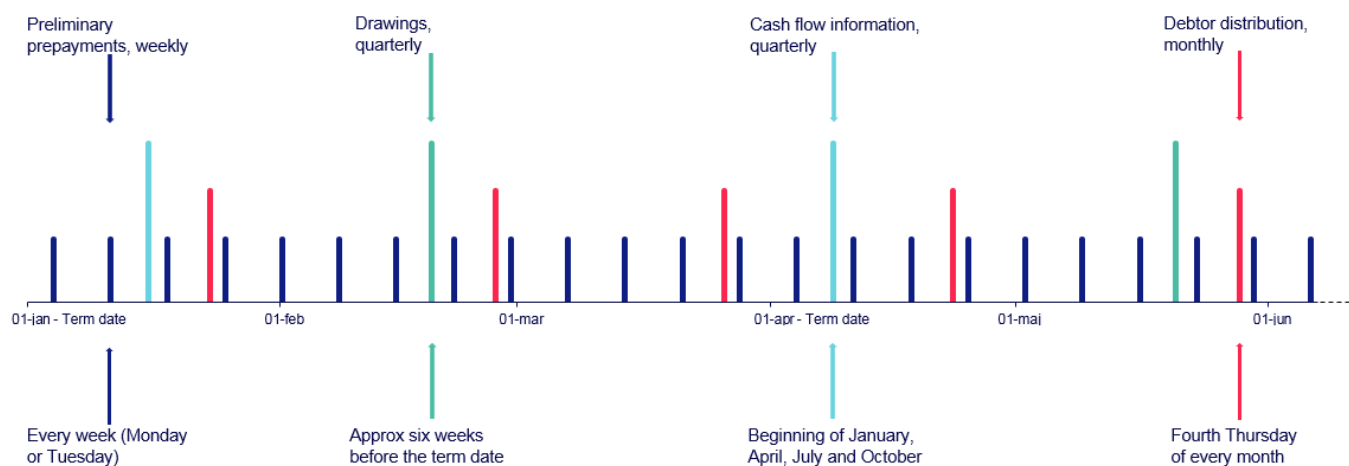
- basic bond information (bond type, maturity, rating, etc.) for all covered bonds issued by Nykredit.

Additionally, for callable covered bonds the following information is available:

- debtor distribution data
- preliminary prepayments
- drawings, i.e. final prepayments and ordinary repayments
- cash flows

The data are generally useful and necessary when pricing callable Danish covered bonds. Appendix A provides an overview of the data.

**Figure 1 Overview – release of data for callable covered bonds**



## Basic bond information

"Basic bond information" describes the features of the individual bonds supplemented with updated information on ratings, closing dates and coupons in case of variable interest rates.

An overview of the general bond information supplied by Bond Data is provided in Appendix B.

## Debtor distribution

All Danish issuers of callable covered bonds publish statistical data on the loan portfolio backing each bond (ISIN). The data is used by analysts to assess the probability of prepayments.

Debtor distribution data are published for all callable bond series. The data for each bond series cover all loans broken down into five loan size groups. These loan groups represent five debt intervals as listed in the table below. Furthermore, the distribution among these loan groups of private and nonprivate debtors respectively is published. Finally, the ten loan groups are broken down into cash and bond loans which each involves different debtor tax regimes. Furthermore, the data are supplemented with the average cash loan rates of each loan group. The average cash loan rate determines the size of the post-tax proceeds from prepaying a loan and thus debtors' incentive to do so. As tax rules has changed over the years, this information has only marginal relevance today.

**Table 1 Debtor distribution (DKK 1,000)**

Name of series	Debtor distribution		Notice
Remaining bond debt	Private 1)	Other 2)	By payment date 3)
< 200	Rem. bond debt (bond loans)	Rem. bond debt (bond loans)	Total No of loans
	Rem. cash debt (cash loans)	Rem. cash debt (cash loans)	Total remaining debt
	Avg. cash loan rate	Avg. cash loan rate	
	No. bond loans	No. bond loans	
	No. cash loans	No. cash loans	
	Amortisation account	Amortisation account	
200 – 499	-same-	-same-	-same-
500 – 999	-same-	-same-	-same-
1,000 – 2,999	-same-	-same-	-same-
> 3,000	-same-	-same-	-same-

1) "Private" reflects loans for owner-occupied dwellings and holiday homes.

2) "Other" reflects all other types of property, i.e. commercial residential properties, agricultural properties and other commercial real estate.

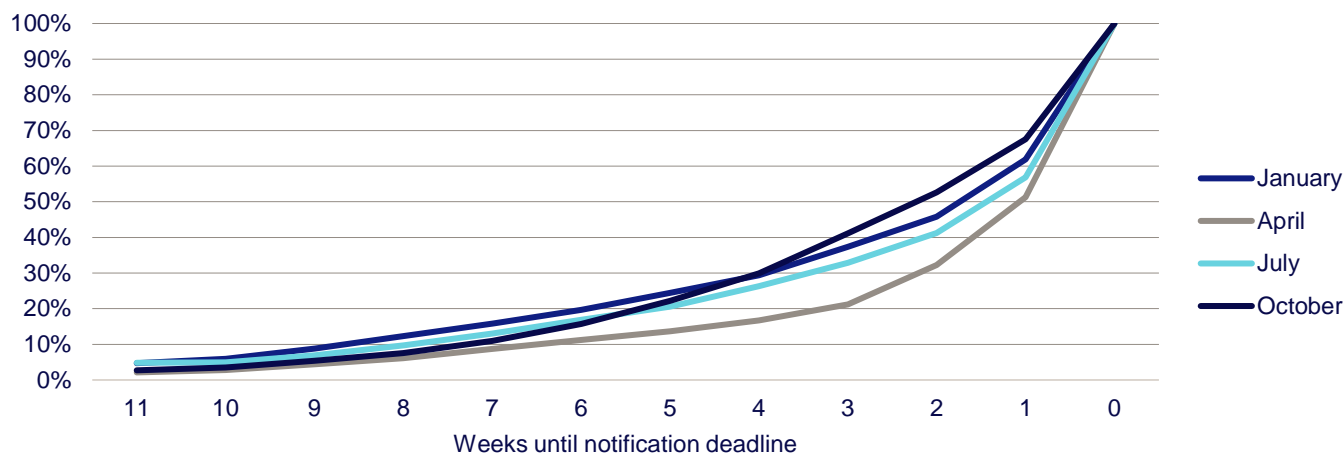
3) The data are supplied with information about the number and bond debt outstanding of loans for which notice of prepayment has been given for any future payment date regardless of whether the drawings have been published or not.

## Preliminary prepayments

Preliminary prepayments are published for all callable bonds on a weekly basis.

Prepayments for coming payment dates are compiled every Friday and published around noon on the following Monday. Although the data are preliminary, they provide investors with an opportunity to monitor debtors' prepayment behaviour and make continuous assessments about the impact hereof on the individual bond series. Preliminary prepayments tend to accelerate in the weeks before the notification date as the cost of prepaying a loan decreases as the time to notification date decreases.

**Figure 2 – Preliminary prepayments as a percentage of final prepayments**



## Drawing of bonds

The total drawing amount and the distribution between ordinary and extraordinary (prepayments) drawings of a specific payment date are published approx. six weeks before the payment date. The drawing date is always a Friday known beforehand. The drawings are published on the day of drawing. On the next trading date and until the payment date, callable bonds will be traded exclusive of prepayments and ordinary repayments for the coming payment date.

Information on the drawings of all callable bond series is published quarterly. The drawings are made on a Friday between the 18<sup>th</sup> and the 24<sup>th</sup> day in February, May, August and November.

## Cash flows

Cash flows are published for all open and closed annuity series with and without interest-only periods as well as serial bonds and index-linked series four times a year.

The cash flow information has been broken down into principal repayments and interest on the debtor side exclusive of administration margins. The calculations are based on all loans including loans for which notice of prepayment has been given for future payment dates, but excluding loans prepaid immediately and loans prepaid by way of a delivery of bonds. The data are compiled as of 31 March, 30 June, 30 September and 30 December and submitted to Nasdaq Copenhagen not later than 12 trading days and published immediately.

Virtually all mortgage loans are annuity loans with or without deferred amortisation, but even though the cash flow of a given Danish callable bond reflects the underlying loans, the bonds are not perfect annuities/deferred annuities. The reason for this is that all loans behind a 30-year bond are 30-year annuity loans with or without deferred amortisation. However, the opening period of the bonds lasts for three years and the bond will then mature 30 years later. Therefore, when a bond closes for issuance and the last debtors take out loans in the bond series, the first debtors will already have had their loans for three years. In consequence, there is a three-year difference between the final payment on the shortest and the longest loan backing the bond.

Consider the following example. The opening period of a generic 1% MTG 2050 would be 1 September 2017 to 31 August 2020<sup>1</sup>. This means that the bond will be an annuity bond until 2047 when the first debtors have repaid their 30 year loans in full. As depicted in Figure 3 below, the repayments scheduled for the last three years decrease. This decrease will be an exact replication of the timing of debtors' entry into the mortgage pool in the opening period. As the Danish mortgage system only offers 10-year, 15-year, 20-year and 30-year fixed-rate bonds, a debtor requiring a 26-year fixed-rate callable loan will have his loan funded in the 30-year bonds.

<sup>1</sup> The actual 1% 2050 was not opened until April 2019.

Figure 3 Generic cash flow of 1% MTG 2050

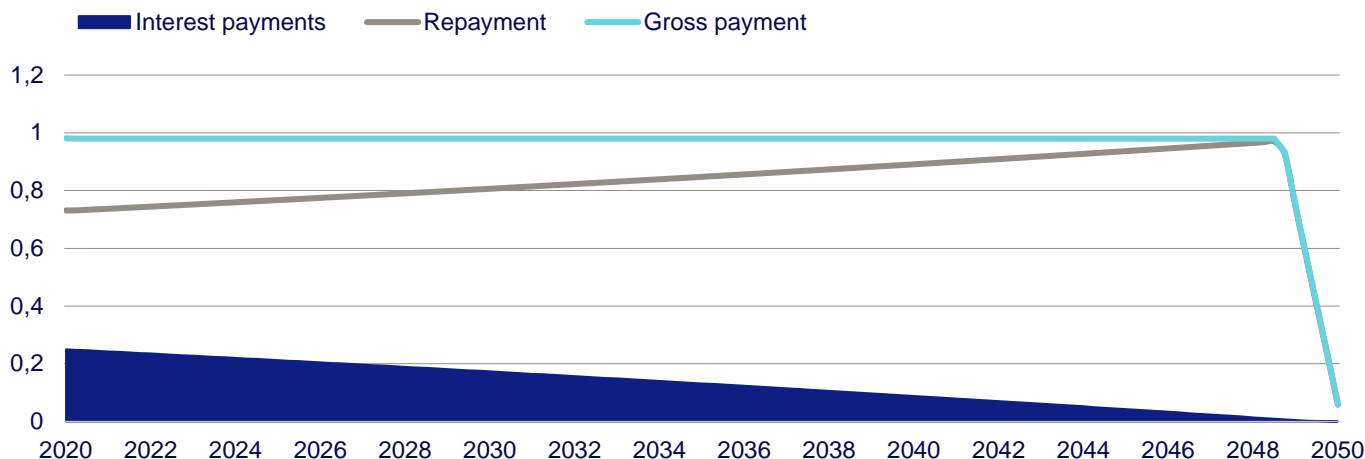
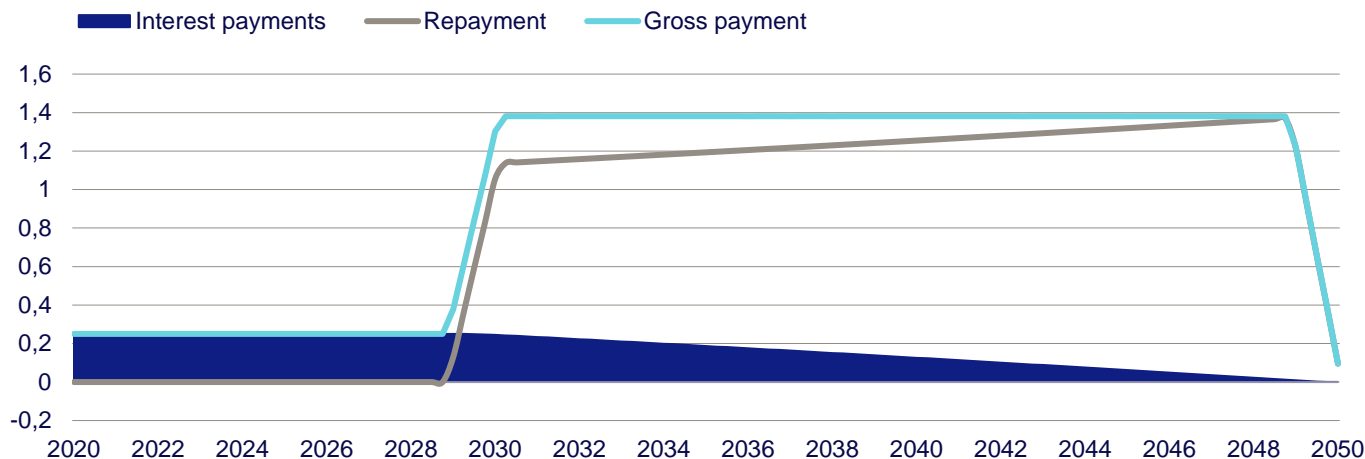
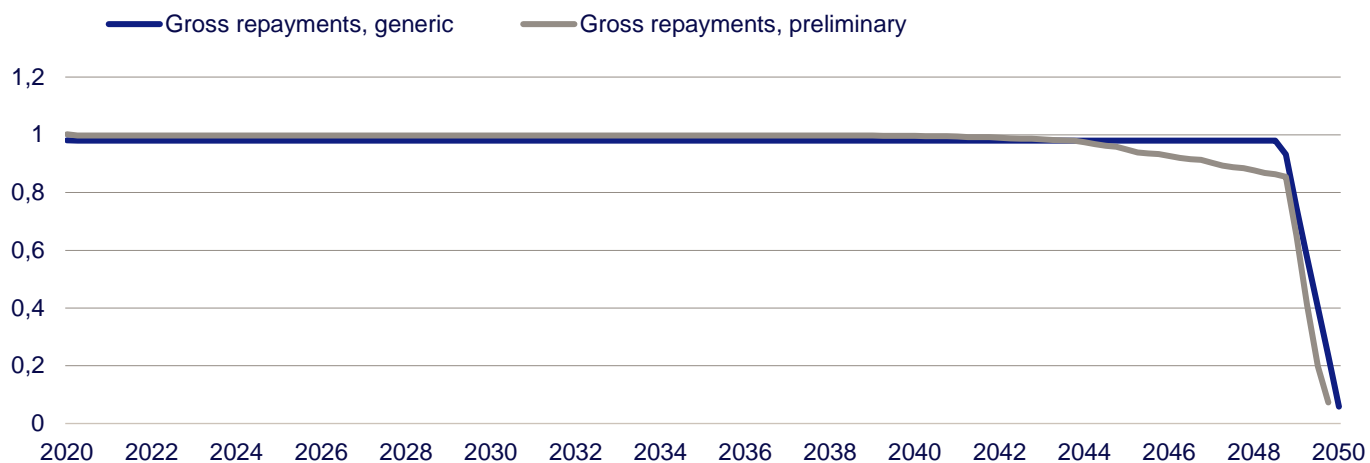


Figure 4 Generic cash flow of 1% MTG IO 2050



If a bond is still open and the final cash flows are therefore unknown, these can be estimated in two ways: The first and most commonly used method is the generic cash flow method, which is based on the assumption that lending in the opening period is evenly distributed over the period. The second (and less applied) method is to estimate the cash flow based only on debtors who have already taken out loans and to assume that no other debtors will be taking out loans in the bond for the rest of the opening period. This assumption is often unrealistic, which is why the generic cash flow is the most used method as long as the bond is open. The difference between the two methods is illustrated in Figure 5.

**Figure 5 Preliminary and generic cash flow of 1% MTG 2050**



Please note that in the Bond Data application, the actual preliminary cash flows are shown for bonds open for issuance – not the generic cash flows. The generic cash flows are compiled by Nasdaq Copenhagen and available through Nasdaq, Nykredit Markets and other dealers.

**Other covered bond data**

Other bond data available at [nykredit.com/ir](http://nykredit.com/ir):

- A list of all Nykredit mortgage bonds including specification of bond category, rating, capital centre and series as well as references to relevant bond prospectuses and final bond terms
- Final bond terms
- Bond prospectuses and other legal documents with respect to Nykredit mortgage bonds
- Rating overview of Nykredit bonds.

Appendix A

Info type covered	Bond series covered	Contents/calculations	Time of calculation and publication	Frequency of publication
General bond information*	All Nykredit and Talkredit mortgage bonds	Bond ID/ISIN, short name, series, rating, coupon, type of interest rate, maturity, etc.	First trading day after the bond has been listed on Nasdaq Copenhagen.	Daily
Debtor distribution	All callable bonds excluding index linked and pre-1970 series.	Breakdown of debtors' existing loans at the time of calculation, ie including loans to be prepaid on a specific payment date but excluding immediate and bond delivery prepayments. Debtors are divided into two groups "private" and "other". Furthermore, the loans are divided into five loan size intervals.	Publication no later than preceding the fourth Thursday of every month at 12h. If the fourth Thursday is not a trading day, publication must take place on the next trading day at the latest. The calculations are made four banking days before the fourth Thursday	Monthly
Preliminary prepayments	All callable series	Prepayments (immediate and on future payment dates) by series up to the Friday before the day of publication excluding cancelled bonds.	Calculated every Friday. If the Friday concerned is not a trading day, the calculation will take place on the trading day before. Weekly publication no later than two trading days after calculation, usually on Monday.	Weekly
Drawings (amount)	All callable series	All ordinary and extraordinary (prepayments) bond drawings. Outstanding amount calculated two days before drawing.	Calculated and published on a Friday approximately six weeks before the payment date, otherwise the trading day before. The drawing rate is calculated by VP Securities 4 trading day before the term.	Quarterly. Drawings in February, May, August and November.
Cash flows	All open and closed series except bullet bonds, but including floating rate bonds.	Cash flow divided into prepayments and interest on the debtor side excluding administration margins. Based on all loans including loans terminated for repayment on future payment dates, but excluding loans prepaid immediately and loans prepaid by way of bonds.	Calculated on 31 March, 30 June, 30 September and 31 December. Submitted to Nasdaq Copenhagen not later than 12 trading days after calculation and published not later than at the beginning of the next trading day.	Quarterly
Bond terms and conditions	All series	Terms and conditions	When new bond series are opened.	Continuously

Note: \* Additional information available through download from Nykredit's website.

**Appendix B – Overview of general bond information supplied by Bond Data (1% MTG 2050)**

ID code / ISIN	DK0009522815
Short name	1NYK01EA50
Issuer	NYKREDIT
Bond type (covered bond: SDO/covered mortgage bond: SDRO/mortgage bond: RO)	SDO
Series	01E
Capital centre	E
Rating (S&P)	AAA
Fixed/variable rate of interest (F/V)	F
Coupon - prevailing if variable interest rate	1.0%
Maturity year	2050
Denomination	DKK
Callable / Non-callable	Callable
Repayment profile	Annuity
Opening date (dd-mm-yyyy)	01-04-2019
Closing date - if closed (dd-mm-yyyy)	-
Latest closing date (dd-mm-yyyy)	31-08-2020
Last coupon date (dd-mm-yyyy)	01-10-2050
No. of annual coupon dates	4
Coupon dates (dd-mm)	01/01, 01/04, 01/07, 01/10
CRD compatible (Y/Y through grandfathering/N)	Y
UCITS 22.4 compatible (Y/N)	Y
Taxation (S/B)	B
Index-linked bond (Yes/No)	No
Index type (I/IE/IS/IJ/AI) - only index-linked bonds	

**Disclaimer Markets**

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