

A Danish mortgage bond is, in principle, a loan to a borrower who has taken out a mortgage on his or her home. In this way bond investors finance homeowners bond loans. When a homeowner wants to borrow money from a mortgage provider, the mortgage provider will issue bonds, i.e. sell bonds in the market. The proceeds from the sale is paid to the homeowner as a loan.

Mortgage bonds are issued by Danish mortgage credit institutions. These will typically have a high credit rating, nearly in line with the Danish government. Their high credit rating is attributable to the nature of the Danish mortgage loan model, including the liability assumed by the borrower and the security provided by a mortgage on real property. A high credit rating means the risk of not having your money repaid is very small.

When you invest in mortgage bonds, you must be aware of the difference between the various types of loans:

- Some Danish mortgage bonds are callable, meaning borrowers can call in and redeem the loan before the bond reaches maturity, usually at a bond price of 100 (at par value). If you buy a callable mortgage bond, you must be aware that you may risk redemption in full or in part of your bond before it matures. Therefore, if the bond is traded at a price that is higher than 100, you risk suffering a capital loss if the callable bond is redeemed at the price of 100. In order to compensate for this risk, you will typically obtain a higher rate of interest than that on a corresponding non-callable bond.
- There are non-callable mortgage bonds, whereby the borrower is not able to redeem his/her loan at par value. The quoted price of these bonds may therefore - contrary to callable bonds - increase to above par value (100), as interest rates decline.
- Mortgage bonds either have a fixed interest rate or a floating interest rate.
- Mortgage bonds typically have a long duration, but short bonds also exist, e.g. to finance homeowners F1, F3 or F5 loans.
- Mortgage bonds are issued in a number of series, with different collateral attached to each bond issues. For instance, loans to private homes or commercial property.

1. Opportunities offered by mortgage bonds

Danish mortgage bonds are relevant for investors who want a relatively reliable investment yielding a relatively safe and stable return. Danish mortgage bonds will typically be considered slightly riskier than Danish government bonds and hence offer a slightly higher yield.

Bonds can contribute to stabilising the risk in a portfolio that

contains both stocks and bonds.

2. Pros and cons

Pros	Cons
Investment in mortgage bonds with a high creditworthiness/rating is fairly safe.	Over a long period, you will typically receive a slightly lower return than you would have received, had you invested in shares.
You will typically receive interest payments on an ongoing basis.	Investment in long-term bonds involves a higher risk than investment in short-term bonds.
In the long term, you will typically yield a slightly higher return than that on government bonds.	It varies a lot how liquid (readily converted to cash) different bond series are, and hereby the prospect of selling if you wish to dispose of the mortgage bond before it matures.
	Some Danish mortgage bonds contain option elements, and it may be complex to fix the value of and the risk associated with these.

3. Return

The total return depends on both the price development over the investment period and the interest rate (coupon) on your bonds as well as a potential redemption:

- The bond price may vary over time and influence your total return, if you sell the bond before it matures.
- There are bonds with a fixed interest rate and bonds with a floating interest rate, the latter meaning that the interest rate will fluctuate during the bond tenure. If you have purchased a fixed-rate bond, you can expect to receive a fixed interest payment on each interest payment date, calculated as the interest rate (coupon rate) on the bond multiplied by the face value of your holding.
- In many bond series, the borrower pays continuous instalments on the loan. The mortgage provider repays these instalments to the bond investor as redemption, which is calculated as a redemption rate per interest payment date.

Benchmarks are typically used to measure whether a bond performance is satisfactory, by comparing the return on a bond with the return on a benchmark. A benchmark is a reference portfolio containing bonds which may be categorised by e.g. bond type, rating or maturity. When using benchmarks (e.g. interest rate benchmarks) in connection with government bonds, you must be aware of the risk that these benchmarks are, or may be, subject to national, international or other initiatives that may cause the benchmark to be calculated differently than it used to or may cease to exist. Please see the banks website for fallback plans in connection with benchmarks.

4. About risk

There are a number of risks to consider when investing in mortgage bonds:

- **Market risk:**
 - The risk of the interest-rate level going up. Bond prices fluctuate in step with changes in the interest-rate level. This especially applies for fixed-rate bonds with a long

duration. The price on such bonds will rise when the interest rate falls, and the price will fall when the interest rate rises. The price of the bond will be affected by supply and demand and by investors' expectations of the interest rate development and of the issuer.

The longer the maturity of your bonds, the more sensitive the price will be to changes in the interest-rate level. Please note that there are different bond types. This means that the bonds that you invest in may also have varying repayment profiles. Many bonds are bullet loans, i.e. the entire loan amount is repaid at the time of maturity. Other bonds may involve fixed annual repayments. Finally, a large part of bonds are issued as annuity bonds, for which repayments increase over the time to maturity. Also, the risk associated with the various bond types differs. Considering the three different repayment profiles mentioned above, and assuming identical duration for them all, the highest risk is associated with the bullet loan. This is followed by annuity loans, while the lowest risk is associated with loans with fixed annual instalments.

Bonds may be fixed or floating-rate bonds, which also affects the risk. Given the same time to maturity, fixed-rate bonds involve higher risk than floating-rate bonds, for which the rate of interest is adjusted on an ongoing basis.

- Credit risk:
- Moreover, the price of a mortgage bond will fall, as the probability increases that the bond issuer will not be able to fulfil its payment obligations as regards interest, instalments and debt outstanding coupon payment and principal. Consequently, the risk that the issuer may go bankrupt, and the homeowners cannot repay their debt, means that an investor will insist on receiving a higher rate on the bond at purchase.
- The price may change if the creditworthiness of the bond changes, which for most bonds is expressed through a rating. A poor rating typically means a higher risk of default. Even though it is rather unlikely, a mortgage bond may become worthless, if the issuer of the bond goes bankrupt, and the homeowners cannot repay their loans.
- Ratings are issued by credit rating agencies such as Moodys, S&P and Fitch, which apply different scales ranging from the best to the poorest rating. You should therefore always consider the rating of a bond - all types of bonds. There is typically a correlation between the credit rating of the issuer the risk, and the expected return. The lower the credit rating, the higher the risk and the higher the potential return.
- Credit spread: When a bond issuers rating is downgraded, or the market sees a rising concern in terms of the solvency of the bond, the price of this bond will drop as compared to government bonds. This is expressed as a widening of the credit spread between mortgage bonds and government bonds.
- Currency risk:
- If you buy a bond denominated in another currency (for instance EUR), you assume an exchange-rate risk. If the exchange rate of the Euro falls, the value of your bonds, as measured in Danish kroner, will fall.
- Liquidity risk:
- The liquidity of mortgage bonds (how easily they can be converted into cash) varies quite a lot. Generally, large bond series are more liquid than small bond series, for which the liquidity risk is higher. The higher the liquidity risk, the more difficult it may be to sell the bond when you wish to do so. One reason for the difference in the size of bond series is frequent interest rate fluctuations, which cause investments to be distributed on numerous series with various coupon rates.
- Sustainability risk:
- Sustainability risk means an environmental, social or corporate governance event or condition that, if it occurs, may cause an

actual or potential significant negative impact on the value of an investment.

Mortgage bonds are issued in various types of loans to various types of borrowers, e.g. private house/apartment owners, industrial companies, farmers etc. Investing in mortgage bonds involves sustainability risks related to various types of borrowers.

Mortgage bonds are issued based on various forms of assets, e.g. various types of property. The value of property can be affected by e.g. environmental disasters, resulting in a lower value of the mortgaged property and hereby a higher risk when purchasing the bond. The loss in value of property used for production may also affect the company's operating profit, and hereby its ability to repay its mortgage loan.

- Diversification:
- Investment in various bonds with various issuers will reduce the risk. As is the case with investment in shares, it is recommended to diversify the risk on several bonds and, hence, reduce the risk of loss.
- Bonds can contribute to stabilising the risk in a portfolio that contains both stocks and bonds.

5. What you should know before trading

Comparing bonds and stocks

Investment in bonds will typically entail a lower risk than investment in shares. When investing in a bond, you lend money to the issuer of the bond, which may be a company, a mortgage credit institution or a government.

Conversely, when buying a stock, you buy a stake in a company. For a bond, there is a fixed plan in terms of interest and instalments on the loan. When buying a share, you are basically not guaranteed any return. If a company goes bankrupt (defaults), bondholders will be first in line to get their part of what is left of the company, while shareholders will be last in line.

Tax

We offer general advice on tax issues. The tax rules differ depending on whether you trade as a private individual, as a personally owned enterprise, as a company or if you invest your retirement money.

If you wish to learn about the specific importance of the tax rules for you, we recommend that you consult your accountant.

Expenses

There are costs associated with investment in mortgage bonds. You will be informed about the expenses associated prior to making an investment in a bond:

- There are one-off costs associated with buying and selling bonds (brokerage). The brokerage fee is calculated as a percentage of the bond price of your bond order.
 - When trading foreign bonds, a currency exchange fee will also be charged. In connection with certain foreign bonds, a stock exchange fee or turnover tax may be charged.
 - In addition to trading costs, there are ongoing charges for the safekeeping of bonds in a custody account.
- The relevant costs are stated on the Banks website.

Whether you trade via self-service systems or an adviser, you will always be informed of the expected one-off costs and on-going charges associated with a specific transaction.

Recommendation

We recommend that you contact your adviser if you have any questions in relation to the above information - or if you need any points clarified.