Danske Bank

Information about Interest rate swaps

This fact sheet provides general information about interest rate swaps that can be traded through Danske Bank. Interest rate swaps can be entered into as an OTC transaction with Danske Bank as counterparty.

WHAT IS AN INTERST RATE SWAP?

An interest rate swap is an agreement between two parties to swap interest rate payments in the same currency.

When entering into an interest rate swap, the parties typically agree to swap:

- a fixed rate for a floating rate; or
- two floating rates with different tenors.

An interest rate swap may be adjusted to suit individual needs. When entering into an agreement to trade an interest rate swap, the two counterparties will typically agree on the following parameters:

- the start and end date;
- the currency and notional amount;
- the profile of the notional amount during the term of the transaction;
- the interest rates to be swapped and their daycount convention;
- the resetting frequency for floating rates;
- the frequency for interest rate payments, and
- whether payments should be paid in advance or in arrears.

The daycount convention determines the actual interest rate payments. In other words, there is a difference whether the payment is calculated on the basis of a 360-day interest year or the actual number of days in the calendar year.

The profile of the notional amount can be a so-called bullet profile, for which the notional amount is not amortized during the term of the transaction. An alternative is a serial profile, for which the notional amount is amortized by equal amounts during the term. The profile can also be completely customized to suit individual needs.
Taking the above terms into consideration,
the two parties will agree on a fixed rate or a spread to the floating rate.

The floating rate is determined relative to a reference rate in the respective currency, which for a generic currency is denoted Xibor.

Danske Bank

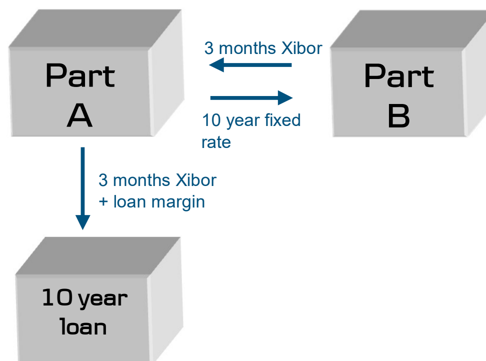
Payments are determined according to the notional amount agreed upon for every interest rate period and paid on the pre-agreed dates.

- If the floating interest rate amount is greater than the fixed interest rate amount, the party paying the fixed amount will receive from the other party the difference between the two;
- If the floating interest rate amount is below the fixed interest rate amount, the party paying the fixed amount will pay to the other party the difference between the two.

If an interest rate is negative, the party receiving the corresponding interest rate amount will instead pay that amount and vice versa.

USING INTEREST RATE SWAPS

The following is an example of how interest rate swaps can be used.



An interest rate swap can be used to reschedule interest payments on a loan. That way, physical debt rescheduling can be avoided.

In the example, A has raised a loan with a maturity of ten years. The interest rate is floating and fixed every three months. A has an overall interest payment every third month equal to the 3 months Xibor rate plus a loan margin.

When entering into the interest rate swap, the parties agree on a quarterly payment of a fixed interest rate for ten years to B. B pays the 3 months Xibor rate enabling A to fix the rate of the loan on the establishment of the interest rate swap.

Hence, the net interest payment for the following ten years will be the fixed rate plus the loan margin.

Danske Bank A/S · CVR-nr. 61 12 62 28 · København

Danske Bank has prepared this material for information purposes. We recommend that you discuss any potential transactions to be based on this material with your investment adviser.
Editorial deadline: 29 October 2018.

PRICING INTEREST RATE SWAPS

The basic principle of determining the price of interest rate swaps is that the values of the two cash flows (with addition of a possible upfront payment) should be identical so that the transaction has no market value when it is entered into.

The floating rate during the term of the interest rate swap is of course unknown, but using the structure of the yield curve at the time the transaction is set up, you can develop an expectation of how the floating rate will develop.

The fixed rate is then determined as an average rate (effective yield) of the expected development in the floating rate. The rate is fixed so the present values of the two cash flows are identical.
After the floating and fixed rates have been fixed, a client margin is added to the transaction, which results in a negative market value at the time the transaction is entered into, corresponding to the present value of the client margin during the entire term of the transaction.

TERM

The term of an interest rate swap varies from currency to currency but is typically up to 30 years.

If a transaction is terminated prior to its scheduled maturity, the market value may be negative. The party to whom the transaction has a negative market value must compensate the other party by an amount equal to the absolute value of the negative market value.

RISK FACTORS

The risk of an interest rate swap relates to the future development in short and long-term interest rates.

The greatest risk for a payer of fixed interest in an interest rate swap is a general decline in short and long-term interest rates, which would increase the present value of the future payment obligation. The opposite applies when interest rates go up.
The market value reflects the difference between the present value of future floating rate payments and future fixed rate payments.

Note that the development in market value in a rising or falling interest rate scenario, respectively, is asymmetric.

If you are paying the fixed rate, the sum of future net payments will decline in a rising interest rate scenario and result in a market value gain. However, given the higher interest rate level, the gain will be valued lower in present value terms, as the gain is discounted by a higher discount rate.

Danske Bank A/S · CVR-nr. 61 12 62 28 · København

Danske Bank has prepared this material for information purposes. We recommend that you discuss any potential transactions to be based on this material with your investment adviser.
Editorial deadline: 29 October 2018.

Similarly, if you are paying the fixed rate, the sum of future net payments will increase in a falling interest rate scenario and result in a market value loss. However, given the lower interest rate level, the loss will be valued higher in present value terms as the loss is discounted by a lower discount rate.

COLLATERAL

We may require you to provide collateral when you enter into a transaction with us as counterparty.

TAXATION

The tax treatment of a gain or a loss on an interest rate swap depends on whether you are dealing as a private individual or on behalf of a company.

Due to the complex nature of the relevant tax rules, we recommend that you consult an accountant, tax advisor or other professional adviser to clarify the tax and accounting consequences.

Danske Bank A/S · CVR-nr. 61 12 62 28 · København

Danske Bank has prepared this material for information purposes. We recommend that you discuss any potential transactions to be based on this material with your investment adviser.
Editorial deadline: 29 October 2018.