

# Information about Cross Currency Swaps

This fact sheet provides general information about cross currency swaps that can be traded through Danske Bank. Cross currency swaps can be entered into as an OTC transaction with Danske bank as counterparty.

## WHAT IS A CROSS CURRENCY SWAP?

An cross currency swap is an agreement between two parties to swap payments in two different currencies.

When entering into a cross currency swap, the parties typically agree to swap:

- a fixed rate in one currency for a fixed rate in another currency; or
- a fixed rate in one currency for a floating rate in another currency; or
- a floating rate in one currency for a floating rate in another currency.

The latter type is the most frequently used cross currency swap and is referred to as a cross currency basis swap.

In principle, a basis swap is embedded in all cross currency swaps. A cross currency swap in which Part A e.g. pays a fixed rate of interest in EUR and receives a floating rate of interest in USD consists of:

- an interest rate swap in EUR in which the fixed-rate payment is offset by the floating-rate payment
- a basis swap in EUR/USD in which the floating-rate payment in one currency is offset by the floating-rate payment in another currency.

See the factsheet on interest rate swaps for more information.

A cross currency swap may be adjusted to suit individual needs. When entering into an agreement to trade a cross currency swap, the two counterparties will typically agree on the following parameters:

- the start and end date;
- the currencies and notional amounts, typically based on the foreign exchange rate between the two currencies at the start date;
- the profile of the notional amounts 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.

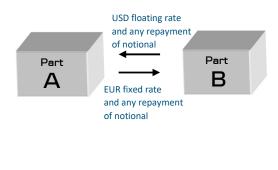
In a cross currency swap the notional amounts are exchanged on the start date (initial exchange) and any remaining notional is exchanged on the end date (final exchange)

Taking the EUR vs. USD cross currency swap as an example, the following flows would occur:

### Initial exchange:



#### Cashflow during term:



#### Final exchange:



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.

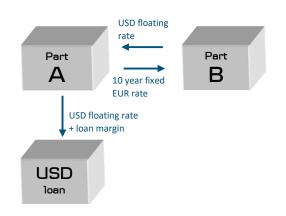
Payments are determined according to the notional amount agreed upon for every interest rate period and paid on the pre-agreed dates.

On a payment day the cashflow in each currency will be settled. This is different from an interest rate swap, where the difference between the two cashflows will be settled.

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

# USING CROSS CURRENCY SWAPS

The following is an example of how cross currency swaps can be used.



A cross currency swap can be used to change the currency exposure on a loan.



	In the example, USD is a relatively cheaper funding source for A compared to EUR funding, so A has raised a floating USD loan with a maturity of ten years. The proceeds from the loan should however be used for buying assets to be settled in EUR. Furthermore these assets will over the coming years generate income to be settled in EUR.
	When entering into the cross currency swap:
	<ul> <li>A passes the loan proceeds in USD to Part B in exchange for the corresponding EUR amount</li> <li>A receives a USD floating rate and any repayment of notional from Part B</li> <li>A pays the fixed EUR rate and any repayment of notional to Part B</li> </ul>
	Consequently, A has except for payments related to the loan margin now changed the currency exposure on the USD loan by entering into the cross currency swap with B.
PRICING CROSS CURRENCY SWAPS	The basic principle of determining the price of interest rate swaps is that the values of the two cash flows should be identical so that the transaction has no market value when it is entered into.
	If one of the cash flows of the cross currency swap relates to a floating rate, the floating rate during the term is of course unknown. However, 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.
	If one of the cash flows of the cross currency swap relates to a fixed rate, the fixed rate is determined as an average rate (effective yield) of the expected development in the floating rate.
	A so-called basis spread between the two currencies will also be incorporated. The basis spread reflects the demand for one currency relative to another (liquidity) and the inherent Xibor-fixing credit risk in one currency relative to another.
	After the 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 a cross currency swap varies from currency to currency but can be 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 a cross currency swap relates to the future development in short and long-term interest rates, cross currency basis and exchange rate movements between the two currencies.
	<ul> <li>If Cross Currency basis is assigned to the cashflow you pay during the term a falling cross currency basis will affect the marketvalue negatively.</li> <li>Similarly, falling short and long term interest rates will affect you negatively, if you pay a fixed rate.</li> <li>During the term of the cross currency swap, the marketvalue will be affected negatively, if the currency you pay appreciates relatively to the currency you receive.</li> </ul>
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 a cross currency 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.