2. currency swap

MIFID complexity
FX 1

product description

Should your company require foreign currency in a given time, while it receives the required foreign currency amount in another time, then a currency swap deal can be concluded to hedge exchange rate risk. With a currency swap deal your company can swap its foreign currency into forint or vica versa for a given period at a given exchange rate (the deal can be concluded in any currency pair quoted by the bank). Thus you can increase your liquidity in a given currency for a given time period by reducing your liquidity in another currency for that period. With the deal you can also roll over the expiry of an existing forward deal to an earlier or a later date. As the latter is the most common use of this deal by our clients, we introduce this first.

roll over of an existing forward deal

By concluding a currency swap deal the parties enter into a foreign exchange deal and at the same time enter into a foreign exchange deal in the opposite direction with the same notional but with a different expiry date (see Chapter I./c entitled “5 Basic products” of “K&H Treasury Handbook of Market Risk Management”). Of course the forward rate will change with the deal: decreases when rolling backwards and increases when rolling forward (in case the base currency’s interest rate is lower than the quote currency’s interest rate) because of the swap points. The bank has a flexible position about roll-over, but a couple of rules must still be observed:

- every position can be rolled over for any length of time starting out from the spot rate applicable upon expiry. In this case, naturally, the profit or loss generated will be settled on the value date of the original forward transaction.
- the movement of the EUR/HUF spot rate on any given day is usually around +/- 1% in comparison with the exchange rate quoted by the NBH (except for extreme circumstances). Forward rates falling into this same range is considered as a market rate, so the previous point will be applicable to it.
- in the event of roll over, the bank must apply the interest rate differential corresponding to the period in question.
- every position can be rolled back to a point in time preceding the original expiry.
- where the amount covered by the original contract will arrive or be incurred as expenditure within a foreseeable period of time (2 weeks), the position (whether a profit or a loss position) can be rolled over, starting out from the exchange rate of the original forward contract, on no more than one occasion, and for the maximum of two weeks
- there is no roll over beyond a quarter, that is, the dates March 31st, June 30th, September 30th, and December 31st must not fall in between the starting and end dates of the roll over period

In summary the deal means a spot purchase or sale of a currency and at the same time a deal concluded in the opposite direction as well for the same currency, notional and expiry for a later date.

spot deal or forward deal + forward deal in opposite direction = currency swap

Gross settlement is applied for the deal.

Costs and revenues of the underlying exposure can compensate both the potential gains and losses of the deal, as long as the company assesses its underlying exposure and market situation properly. The deals are made in order to stabilize the results, not to realise standalone financial gains.

example for rolling over a forward deal: a Hungarian exporter concluded a forward deal to sell EUR 100 000 in 11 months at 301 EUR/HUF to hedge the exchange rate risk of its future foreign exchange income. Two days before expiry the company receives notice that the amount arrives approximately one month later. Thus the company rolls over its forward deal of selling EUR 100 000 to a month later with a currency swap. Let us assume that the spot rate on expiry is 290 EUR/HUF. By concluding a currency swap deal the company buys EUR 100 000 at 290 EUR/HUF with spot value date and sells EUR 100 000 at 291 ¬- the exchange rate increased with the swap points (1 HUF) - for a value date in one month, when the income is expected to arrive. The original forward deal will be closed at spot value date by the currency purchase and the bank will credit the financial result of (301-290) EUR/HUF * EUR 100 000 = HUF 1 100 000 on the company’s account. (In case the exchange rate on expiry was above 301 EUR/HUF, the position would have a loss). The other leg of the swap, expiring in 1 month means that the company will have a forward deal to sell EUR 100 000 but this time at 291 EUR/HUF.

example for a normal swap deal: a Hungarian exporter requires EUR 100 000, while has surplus liquidity in forint and expects EUR 100 000 income in 1 month. To hedge the exchange rate risk of the present shortage and the future surplus in EUR it concludes a currency swap and secures its liquidity without taking exchange rate risk. By concluding a currency swap deal the company buys EUR 100 000 at 290 EUR/HUF for spot value date, while sells EUR 100 000 at 291 EUR/HUF (exchange rate increased by swap points, 1 HUF) for one month later, when the income is expected. The bank credits EUR 100 000 on the company's euro account at spot value date, while debits EUR 100 000 * 290 EUR/HUF = HUF 29 000 000 from the company's HUF account. The far leg of the swap, expiring in 1 month means that the company will have a forward deal to sell EUR 100 000 but this time at 291 EUR/HUF.

The currency swap not only enables the rollover of existing treasury deals but it can also be used on a standalone basis to increase the liquidity in one currency for a given time period in exchange for a liquidity decrease in another currency. The parameters of the swaps are identical in both methods; the only difference is in the settlement: rolling over an existing deal means that one leg of the swap will be net settled with the expiring deal that already existed.

parameters of a currency swap	
notional amount	EUR 100 000
currency pair	EUR/HUF
tenor	1 month
tenor start	spot
direction of swap deal on spot value date (near leg)	EUR buy
direction of swap deal in 1 month (far leg)	EUR sell
exchange rate of near leg	290 EUR/HUF
exchange rate of far leg	291 EUR/HUF
spot rate prevailing at pricing	290 EUR/HUF
exchange rate of original forward deal	301 EUR/HUF
transaction cost on the trade date	zero
possible scenarios on expiry	
exchange rate is below 291 EUR/HUF	your company sells EUR 100 000 at a rate of 291 EUR/HUF
exchange rate is at or above 291 EUR/HUF	
best-case scenario (treasury transaction on a standalone basis)	The EUR/HUF spot rate is below 291 on the expiry date. Your company sells EUR 100 000 at a rate of 291 EUR/HUF.
worst-case scenario (treasury transaction on a standalone basis)	The EUR/HUF spot rate is above 291 on the expiry date. Your company sells EUR 100 000 at a rate of 291 EUR/HUF. The resulting foreign exchange loss can be unlimited.

the market value of the position two weeks after the trade date from the customer's point of view

market value: the cost of closing the position calculated at a given point of time and under the prevailing market terms and conditions (the deal can be closed with profit if the market value is positive)

(assumption: except for the spot market rate, all other factors are unchanged)

The number of possible outcomes is unlimited, and there may be even more extreme values than the ones presented below.

spot rate in two weeks (EUR/HUF)	market value of the position (HUF)
270	2 050 000
300	-950 000
330	-3 950 000

financial outcome of some possible scenarios on the expiry date

The number of possible financial outcomes is unlimited, and there may be even more extreme values than the ones presented below.

exchange rate on the expiry date (EUR/HUF)	underlying exposure's financial outcome with no treasury transaction (HUF)	profit / loss of the product on a standalone basis (HUF)	underlying exposure's financial outcome with the treasury transaction, hedged position (HUF)
270	270 * 100 000 = 27 000 000	(291 – 270) * 100 000 = 2 100 000	291 * 100 000 = 29 100 000
300	300 * 100 000 = 30 000 000	(291 – 300) * 100 000 = -900 000	
330	330 * 100 000 = 33 000 000	(291 – 330) * 100 000 = - 3 900 000	

advantages of transaction

- the exchange rate applicable to foreign currency selling transactions in the future is fixed in advance (in case the near leg of the swap is also a forward deal (forward starting swap), the exchange rate of the currency purchase is also fixed in advance)
- full protection against any appreciation of the forint on the far leg of the currency swap
- potential foreign exchange gains are unlimited (on the treasury deal itself)
- no cost or separate fee charged
- if the hedge is no longer needed, the position can be closed with a counter deal (forward buying of euros for an expiry coinciding with the expiry date of the original deal) with net settlement on expiry. If the near leg of the currency swap is not closed, the deal can be closed with a currency swap in the opposite direction. This may result in profit or loss, depending on the prevailing market conditions.

risks of transaction

- in case only the far leg of the currency swap is in effect, the company practically has a forward deal. In this case the client will be obliged to convert the foreign currency revenues at the forward rate even if the exchange rate on expiry is higher than that, which means that foreign exchange loss will incur. The potential foreign exchange loss can be unlimited in theory.
- if you decide to close your position before expiry by means of a counter deal (forward buying of euros for an expiry date coinciding with the expiry of the original deal) you may incur a loss.
- if both legs of the currency swap are open, the client runs risk on both the near and the far leg as swap points may change due to changes in the exchange rate, the interest rate differential or time until maturity, so there is indirect exchange rate risk. In this case the deal can be closed with a currency swap in the opposite direction, which may result in a loss.
- the actual market value of the currency swap is influenced by the spot rate, the interest rate levels of the two currencies for the given tenor and their differential, the basis swap and the time until maturity. The drop in market liquidity could lead to a bid-offer spread widening, which could also affect the market value of the position negatively.
- the change in market value could lead to an obligation of temporary or permanent increase of collateral which may affect the company's liquidity and solvency negatively. In case of exceptional market circumstances (e.g. money market and other crises) the negative market value of the position from the Client's viewpoint could reach such extreme levels that providing sufficient collateral may cause the company to become insolvent. Moreover, failure to provide additional collateral in time might lead to the closure of open positions thus prompt realization of losses, which may affect the company's liquidity and solvency negatively.
- chapter I/b. entitled "Risk Factors" of "K&H Treasury Handbook of Market Risk Management" lists those risks that do not originate exclusively from the nature of the product described here, but rather, from other factors.

product structure

This product is built up of a spot and a forward deal or two forward deals. The section on forward deals of Chapter I/c. entitled "5 Basic Products" of "K&H Treasury Handbook of Market Risk Management" also applies to this product.