



FX Derivatives

FX Swap

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FX Swap

General Information

A foreign currency transaction is an agreement between two parties to exchange a specified amount of one currency for a specified amount of another currency. The rate at which the currency is exchanged is reflected in the exchange rate. This is the price of a certain currency expressed in terms of the other currency. A EUR/USD exchange rate of 1.4000 means that EUR 1 represents a value of USD 1.4000. In this case the currency pair is EUR/USD, with the EUR being the base currency and the USD being the quote currency.

Foreign currency transactions can be used to hedge (future) currency risks, but also to regulate liquidity positions. In the business world currency transactions are often used to lock in the exchange rate of (future) income and expenditure in foreign currencies. Currency transactions can protect against negative exchange rate developments, whereby it is accepted that locking in an exchange rate eliminates the benefit of any positive exchange rate developments.

There are three basic types of foreign currency transactions:

- **Spot Transaction** - a foreign currency transaction with immediate delivery is called a spot transaction. The exchange rate is called the spot rate.
- **Forward Transaction** - a forward currency transaction is a binding contract between two parties to exchange one currency into another currency at an agreed rate at a specific time in the future (delivery date). The exchange rate is known as the forward rate.
- **Currency Option** - a currency option is a contract that grants the holder the right, but not the obligation, to buy (call) or sell (put) a specific amount of currency at a predetermined exchange rate at a specified date. It is the right to exercise a spot transaction at a predetermined exchange rate. The buyer of the currency option pays a premium to the seller.

Product description

A FX Swap is a combination of a spot and a forward transaction. In a FX Swap an amount of one currency is purchased (or sold) in a spot transaction and subsequently sold (or purchased) in the forward. This is a fixed agreement with both parties entering into an obligation. The forward rate is determined by the spot rate. However, due to the delayed delivery, the time factor and therefore also the interest factor are a consideration. The forward rate is established by settling the interest differential between the two currencies in the rate.

Main product features

- A FX Swap is an agreement between two parties arranged outside the regulated financial markets.
- It is available in all commonly-traded currency pairs
- No minimum or maximum amounts apply (restrictions may apply for less saleable currency pairs)
- Terms are from one day to five years (longer or shorter terms may apply depending on the currency pairs)

- The amount and term can be adapted to specific wishes
- Transactions are confirmed by means of a separate confirmation with all relevant details
- Any delivery takes place via the account(s) stated in the confirmation

Advantages

The advantages of an FX Swap are:

- A FX Swap ensures that a predetermined amount of a currency is exchanged for a predetermined amount of another currency at the value date. This provides security.
- A FX Swap provides protection against negative rate fluctuations.
- Transactions can be closed out with a reverse transaction. Any rate differences (positive or negative) are settled at the predetermined delivery date.

Risks

A FX Swap carries the following risks:

- A FX Swap contract fixes the future exchange rate. That can mean settlement on the value date of the FX Swap contract is less favourable compared to the spot rate could be agreed in the prevailing market. Entering into a FX Swap contract therefore means no longer being able to benefit from favourable exchange rate movements.
- If the actual development of the exchange rate deviates from the client's expectations, there is a risk that in hindsight another currency product / currency strategy would have been better. At the moment the transaction is entered into, the client may determine the risk based on the accepted variables. In doing so the client makes a well-informed choice to accept the risk.
- The more time that transpires between the moment the contract is entered into and the moment of delivery, the greater the risk. If an FX Swap is a one-month contract, the risk of price fluctuations is lower than the risk for example on a 12-month contract.

Costs

No costs are charged separately for an FX Swap. The costs are included in the rate of the FX Swap.

Sample case for an FX Swap

Say for example a client has income and expenses in USD at different moments in time.

Currently the client has to pay USD 100,000 for some basic goods and he will export USD 100,000 goods in three months' time. The client enters into a FX Swap to hedge his USD risk. The client holds sufficient EUR to pay for these transactions.

The EUR/USD spot rate is 1.4000

the 3-month EUR interest rate is 1.00%

the 3-month USD interest rate is 2.00%

3 months = 90 days

EUR 1.0000 = USD 1.4000 based on the spot rate

In three months' time the value of EUR 1.000 is: $1.0000 + 90 \text{ days interest at } 1.00\% = \text{EUR } 1.0025$

In three months' time the value of USD 1.4000 is: $1.4000 + 90 \text{ days interest at } 2.00\% = \text{USD } 1.4070$

The EUR/USD spot rate: $1.4000 / 1.000 = 1.4000$

the 3-month EUR/USD forward rate is : $1.4070 / 1.0025 = 1.4035$

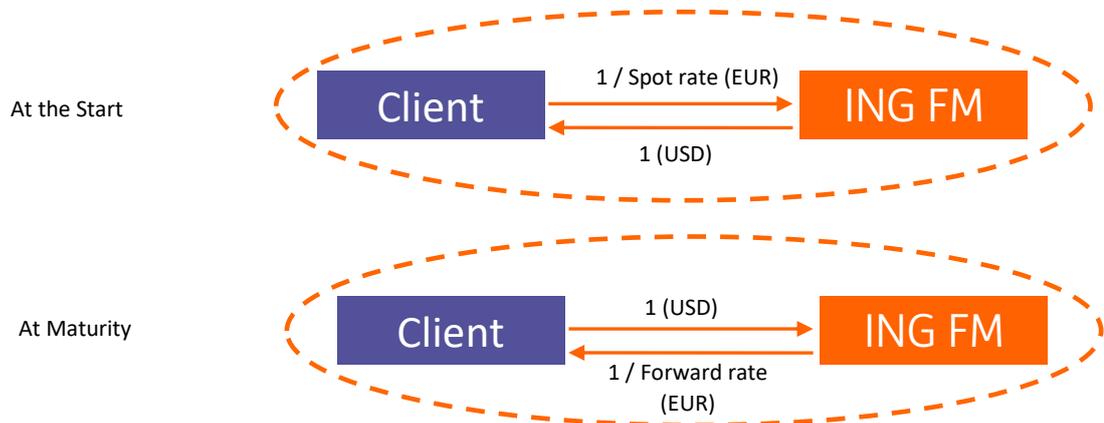
In the FX Swap contract, the client buys USD 100,000 at an exchange rate of 1.4000 on spot and sells USD 100,000 in 3 months at the forward rate of 1.4035. The client locks in the FX risk and knows that after three months he'll pay net EUR 178.13 (= $\text{USD } 100,000 / 1.4000 - \text{USD } 100,000 / 1.4035$)

If the USD interest rate is higher than the EUR interest rate during the respective period, the EUR/USD forward rate is higher than the spot rate. Conversely, if the USD interest rate will be lower than the EUR interest rate during the respective period, the EUR/USD forward rate will be lower than the spot rate.

A positive difference between the forward rate and the spot rate is called the premium (i.e. the forward rate is higher than the spot rate). A negative difference between the forward rate and the spot rate is called the discount (i.e. the forward rate is lower than the spot rate).

To illustrate

The following graph shows that a FX Swap is not sensitive to the spot rate at the end date. The end date is two working days prior to the value date. The FX Swap is settled on the value date at the fixed, predetermined exchange rate.



The importer will not be negatively impacted if the spot rate at the end date is below 1.4035. If the spot rate at the end date is above 1.4035, the importer will not benefit from this either.

Market value

A FX Swap is a freely tradable financial instrument used to hedge financial risks. The fact that a FX Swap is a combination of a spot and a forward transaction, means that it can be valued. The market value depends on the notional, the levels set in the forward contract (i.e. the exchange rate) and on currency market developments. The aforementioned example is expanded below for the sake of clarification.

A client has entered into a FX Swap (opening contract) which involves purchasing USD 100,000 on the spot at an agreed EUR/USD rate of 1.4000 and selling USD 100,000 in three months' time at an agreed EUR/USD rate of 1.4035. Say that the client considers closing out the FX Swap after one month, because his client decided to pay him 2 months earlier. In practice the client enters into a second FX Swap (closing contract) to sell USD 100,000 on the spot and purchase USD 100,000 in 2 months' time or enter into a Forward to purchase USD 100,000 in 2 months' time. In that case the following scenarios can arise:

Scenario 1: The EUR/USD spot rate is unchanged at 1.4000 and the EUR/USD forward rate for the remaining two months is unchanged at 1.4035

- There is no difference between the spot rates of the opening and closing contract and there is also no difference between the forward rates of the opening and closing contract; the net market value of the FX Swap is EUR 0.

Scenario 2: The EUR/USD spot rate is unchanged at 1.4000 and the EUR/USD forward rate for the remaining two months falls to 1.3835

- There is no difference between the spot rates of the opening and closing contract.

- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,030 (= USD 100,000/1.4035 – USD 100,000/1.3835). This translates into a cost for the client and will be settled on the predetermined date of delivery.

Scenario 3: The EUR/USD spot rate is unchanged at 1.4000 and the EUR/USD forward rate for the remaining two months rises to 1.4235

- There is no difference between the spot rates of the opening and closing contract.
- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,001 (= USD 100,000/1.4035 – USD 100,000/1.4235). This translates into a benefit for the client and will be settled on the predetermined date of delivery.

Scenario 4: The EUR/USD spot rate falls to 1.3900 and the EUR/USD forward rate for the remaining two months is unchanged at 1.4035

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 513.87 (= USD 100,000/1.4000 – USD 100,000/1.3900). This translates into a benefit for the client and will be settled immediate.
- There is no difference between the forward rates of the opening and closing contract; the net market value is EUR 0.

Scenario 5: The EUR/USD spot rate falls to 1.3900 and the EUR/USD forward rate for the remaining two months falls to 1.3835

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 513.87 (= USD 100,000/1.4000 – USD 100,000/1.3900). This translates into a benefit for the client and will be settled immediate.
- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,030 (= USD 100,000/1.4035 – USD 100,000/1.3835). This translates into a cost for the client and will be settled on the predetermined date of delivery.

Scenario 6: The EUR/USD spot rate falls to 1.3900 and the EUR/USD forward rate for the remaining two months rises to 1.4235

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 513.87 (= USD 100,000/1.4000 – USD 100,000/1.3900). This translates into a benefit for the client and will be settled immediate.
- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,001 (= USD 100,000/1.4035 – USD 100,000/1.4235). This translates into a benefit for the client and will be settled on the predetermined date of delivery.

Scenario 7: The EUR/USD spot rate rises to 1.4100 and the EUR/USD forward rate for the remaining two months is unchanged at 1.4035

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 506.59 (= USD 100,000/1.4000 – USD 100,000/1.4100). This translates into a cost for the client and will be settled immediate.

- There is no difference between the forward rates of the opening and closing contract; the net market value is EUR 0.

Scenario 8: The EUR/USD spot rate rises to 1.4100 and the EUR/USD forward rate for the remaining two months falls to 1.3835

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 506.59 (= USD 100,000/1.4000 – USD 100,000/1.4100). This translates into a cost for the client and will be settled immediate.
- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,030 (= USD 100,000/1.4035 – USD 100,000/1.3835). This translates into a cost for the client and will be settled on the predetermined date of delivery.

Scenario 9: The EUR/USD spot rate rises to 1.4100 and the EUR/USD forward rate for the remaining two months rises to 1.4235

- There is a difference of 0.01 between the spot rates of the opening and closing contract. This difference of 0.01 on the principal sum of USD 100,000 is EUR 506.59 (= USD 100,000/1.4000 – USD 100,000/1.4100). This translates into a cost for the client and will be settled immediate.
- There is a 0.02 difference between the forward rate in the opening contract and the rate in the closing contract. This difference of 0.02 on the principal sum of USD 100,000 is EUR 1,001 (= USD 100,000/1.4035 – USD 100,000/1.4235). This translates into a benefit for the client and will be settled on the predetermined date of delivery.

The simplified examples provided above are realistic and serve to illustrate the scenarios. No rights may be derived from this document.

Margin requirement for non-professional clients

The bank has a legal obligation to ensure that the balances of clients who hold positions in financial instruments from which obligations (e.g. negative market value) may arise, are always sufficient for them to continue to meet their existing obligations. The client and the bank make margin agreements regarding this. In the event a margin deficit looms due to market circumstances, the bank will notify the client of this in writing without delay. If a deficit does in fact emerge, the client must take measures within five working days to eliminate this deficit, for example by providing additional securities. If the margin deficit is not eliminated within five working days, the bank will have no option but to proceed to unilaterally close all or some of the positions held, insofar as required to eliminate the margin deficit.

Contact

For more information please contact ING Financial Markets

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