

ACCOUNTING TREATMENT OF CURRENCY DERIVATIVES

CURRENCY FORWARDS, CURRENCY SWAPS, CROSS CURRENCY SWAPS

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This is the first in a series of papers dealing with accounting treatment of certain generally tradable derivatives, more specifically currency and interest rate derivatives, including options, in accordance with accounting procedures for banks.

Definition of Derivatives

Under Decree of the Ministry of Finance of the SR No. 20 359/2002-92, a derivative is defined as a financial instrument, which concurrently meets the following conditions:

- a) its fair value changes depending on changing interest rates, security prices, commodity prices, prices of foreign currencies, the price index, the credit rating or credit index, or depending on a similar variable,
- b) it does not require any initial net investment or only requires initial net investment lower than the one required for other types of financial instruments, which similarly respond to changes in lending and market factors,
- c) is agreed and settled as of a future date, with a period from the trade date to the settlement date longer than for a spot operation.

In terms of underlying financial instruments, a distinction is made between:

- interest rate derivatives, that is, derivatives based upon interest rate instruments,
- currency derivatives, that is, derivatives based upon currency instruments,
- equity derivatives, that is, derivatives based upon equity instruments,
- commodity derivatives, that is, derivatives based upon commodity instruments,
- credit derivatives, that is, derivatives based upon credit instruments,

In accounting terms, treated as interest rate derivatives are financial instruments composed of two or more underlying interest rate instruments, which are denominated in just one currency, and the fair value of which is not influenced by the interest rate of a risk-bearing financial instrument of another accounting entity. Also considered as interest rate derivatives are forward time deposits.

In accounting terms, treated as currency derivatives are financial instruments composed of two or more underlying currency instruments, which are denominated in at least two currencies, and the fair value of which is not influenced by the interest rate of a risk-bearing financial instrument of another accounting entity.

In accounting terms, treated as equity derivatives are financial instruments composed of at least one underlying equity instrument, or also of one or more underlying interest rate instruments, but not an underlying commodity instrument, the fair value of which is not influenced by the interest rate of a risk-bearing financial instrument of another accounting entity.

In accounting terms, treated as commodity derivatives are financial instruments composed of at least one underlying commodity instrument, or also of one or more underlying interest rate instruments or underlying equity instruments, the fair value of which is not influenced by the interest rate of a risk-bearing financial instrument of another accounting entity.

In accounting terms, treated as credit derivatives are financial instruments composed of at least one underlying interest rate instrument, or also of one or more underlying equity instruments or underlying commodity instruments, the fair value of which is influenced by the interest rate of a risk-bearing financial instrument of another accounting entity.

Derivatives are kept in off-balance sheet and balance sheet accounts from the trade date till the date of their last settlement or termination, the exercise of a right, their sale or repurchase.

Currency Derivatives – Forwards

A forward represents an agreement (a commitment) to exchange two currencies in the future, with the maturity extending beyond the spot value date, i.e. equal to



at least D + 3, and with the forward rate being set on the commitment date. It is used to hedge against the exposure of the client's future foreign currency cash flows to the currency risk.

A forward may:

1. involve a physical delivery – the purchase or sale of an agreed volume of one currency in exchange for another at an agreed-upon forward rate and on an agreed-upon date, with the transaction being settled via current accounts,

2. not involve a physical delivery (a Non Delivery Forward – NDF) – an agreement to purchase an agreed-upon volume of one currency in exchange for another at an agreed-upon forward rate and on an agreed-upon date, without moving current accounts. On the transaction maturity date, only a difference between an agreed-upon and actual currency amount is settled, which is called netting.

For accounting entries to be correctly made, it is important to determine a valuation method for forwards. A forward rate, which corresponds with the fair value entered in accounting records, is determined as the sum of a spot rate and forward points, i.e., an interest rate differential for the two currencies over an agreed-upon period.

Accounting procedures for banks

1. On the day of concluding a forward, a bank:

a) makes an off-balance sheet entry on

– an off-balance sheet receivable:

Dr 95 Receivables from fixed term operations with currency instruments – forward – buy

Cr 99 Redistribution account of operations with currency instruments

– an off-balance sheet payable:

Dr 99 Redistribution account of operations with currency instruments

Cr 95 Payables from fixed term operations with currency instruments – forward – sell

b) enters the first revaluation to account for the fair value

– if the difference is positive:

Dr 31 Fixed term operations with currency instruments – gains from forward revaluation

Cr 71 Revenue from derivative operations – gains from forward revaluation

– if the difference is negative:

Dr 61 Cost of derivative operations – losses from forward revaluation

Cr 31 Fixed term operations with currency instruments – losses from forward revaluation

2. During the following period, up until the maturity date of a forward, the bank recalculates the fair value on a daily basis

– an increase in the positive difference:

Dr 31 Fixed term operations with currency instruments – gains from forward revaluation

Cr 71 Revenue from derivative operations – gains from forward revaluation

– an increase in the negative difference:

Dr 61 Cost of derivative operations – losses from forward revaluation

Cr 31 Fixed term operations with currency instruments – losses from forward revaluation

– a decrease in the positive difference:

Dr 71 Revenue from derivative operations – gains from forward revaluation

Cr 31 Fixed term operations with currency instruments – gains from forward revaluation

– a decrease in the negative difference:

Dr 31 Fixed term operations with currency instruments – losses from forward revaluation

Cr 61 Cost of derivative operations – losses from forward revaluation

– a change from a positive to a negative difference:

cancellation Dr 31 Fixed term operations with currency instruments – gains from forward revaluation

cancellation Cr 71 Revenue from derivative operations – gains from forward revaluation

Dr 61 Cost of derivative operations – losses from forward revaluation

Cr 31 Fixed term operations with currency instruments – losses from forward revaluation

– a change from a negative to a positive difference:

cancellation Dr 61 Cost of derivative operations – losses from forward revaluation

cancellation Cr 31 Fixed term operations with currency instruments – losses from forward revaluation

Dr 31 Fixed term operations with currency instruments – gains from forward revaluation

Cr 71 Revenue from derivative operations – gains from forward revaluation

3. On the forward maturity date, the bank:

a) removes an off-balance sheet entry on

– an off-balance sheet receivable:

Dr 99 Redistribution account of operations with currency instruments

Cr 95 Receivables from fixed term operations with currency instruments – forward – buy

– an off-balance sheet payable:

Dr 95 Payables from fixed term operations with currency instruments – forward – sell

Cr 99 Redistribution account of operations with currency instruments

b) enters in current accounts the conversion as purchase of one FC and sale of another FC



- buy:
- Dr 13 Current accounts with banks
- Cr 35 Redistribution account of exchange rate differences
- sell:
- Dr 35 Redistribution account of exchange rate differences
- Cr 13 Current accounts with banks
- c) charges netted balances on revaluation accounts to the fair value
 - a negative difference:
 - Dr 31 Fixed term operations with currency instruments – losses from forward revaluation
 - Cr 35 Redistribution account of exchange rate differences
 - a positive difference:
 - Dr 35 Redistribution account of exchange rate differences
 - Cr 31 Fixed term operations with currency instruments – gains from forward revaluation

On the maturity date, after all accounting entries on a transaction have been made in revaluation accounts of the account group 31 and a currency conversion account in the account group 35, the account balances for that particular transaction must be equal zero. It is possible to post any halier differences, which may arise upon the foreign currency conversion, to expense accounts (the account group 61), or revenue accounts (the account group 71) for entering losses or gains from derivative operations due to forward revaluation.

Currency Derivatives – Swaps

A currency swap is an agreement to buy and sell one currency in exchange for another, at a concurrent resale and repurchase on an agreed-upon future date and at an agreed-upon rate. It is a combination of a spot and forward transaction.

The following swaps are distinguished:

1. Buy and Sell – spot purchase of the base currency at its concurrent forward sale,
2. Buy and Sell – spot sale of the base currency at its concurrent forward purchase,

Swaps are valued in the same way as forwards. A swap rate, which corresponds with the fair value entered in accounting records, is determined as the sum of a spot rate and swap points, i.e., an interest rate differential for the two currencies over an agreed-upon period.

Accounting procedures for banks

1. On the day of concluding a swap, a bank:
 - a) makes an off-balance sheet entry on
 - an off-balance sheet spot receivable:

- Dr 95 Receivables from fixed term operations with currency instruments – spot leg of the swap – buy
- Cr 99 Redistribution account of operations with currency instruments
 - an off-balance sheet spot payable:
 - Dr 99 Redistribution account of operations with currency instruments
- Cr 95 Payables from fixed term operations with currency instruments – spot leg of the swap – sell
 - an off-balance sheet forward payable:
 - Dr 99 Redistribution account of operations with currency instruments
- Cr 95 Payables from fixed term operations with currency instruments – forward leg of the swap – sell
 - an off-balance sheet forward receivable:
 - Dr 95 Receivables from fixed term operations with currency instruments – forward leg of the swap – buy
- Cr 99 Redistribution account of operations with currency instruments
- b) enters the first valuation to account for the fair value
 - if the difference is positive:
 - Dr 31 Fixed term operations with currency instruments – gains from swap revaluation
 - Cr 71 Revenue from derivative operations – gains from swap revaluation
 - if the difference is negative:
 - Dr 61 Cost of derivative operations – losses from swap revaluation
 - Cr 31 Fixed term operations with currency instruments – losses from swap revaluation
- 2. During the following period, the bank recalculates the swap fair value on a daily basis. On the spot value date, the revaluation covers both the spot and forward leg of the swap. After the spot leg of the swap transaction matures, only the forward leg is revaluated. The accounting treatment is the same, the only differences appear in subledger accounts in the respective account group:
 - an increase in the positive difference:
 - Dr 31 Fixed term operations with currency instruments – gains from swap revaluation
 - Cr 71 Revenue from derivative operations – gains from swap revaluation
 - an increase in the negative difference:
 - Dr 61 Cost of derivative operations – losses from swap revaluation
 - Cr 31 Fixed term operations with currency instruments – losses from swap revaluation
 - a decrease in the positive difference:
 - Dr 71 Revenue from derivative operations – gains from swap revaluation



- Cr 31 Fixed term operations with currency instruments – gains from swap revaluation
– a decrease in the negative difference:
- Dr 31 Fixed term operations with currency instruments – losses from swap revaluation
- Cr 61 Cost of derivative operations – losses from
– a change from a positive to a negative difference:
cancellation Fixed term operations with currency
Dr 31 instruments – gains from swap revaluation
- cancellation Revenue from derivative operations –
Cr 71 gains from swap revaluation
- Dr 61 Cost of derivative operations – losses from
swap revaluation
- Cr 31 Fixed term operations with currency instruments – losses from swap revaluation
– a change from a negative to a positive difference:
cancellation Cost of derivative operations
Dr 61 – losses from swap revaluation
- cancellation Fixed term operations with currency
Cr 31 instruments – losses from swap revaluation
- Dr 31 Fixed term operations with currency instruments – gains from swap revaluation
- Cr 71 Revenue from derivative operations – gains from swap revaluation
3. When the spot leg of a swap matures, the bank removes an off-balance sheet entry on:
– an off-balance sheet spot receivable:
- Dr 99 Redistribution account of operations with
currency instruments
- Cr 95 Receivables from fixed term operations with
currency instruments – spot leg of the swap
– buy
- an off-balance sheet spot payable:
- Dr 95 Payables from fixed term operations with
currency instruments – spot leg of the swap –
sell
- Cr 99 Redistribution account of operations with
currency instruments
4. When the forward leg of a swap matures, the bank removes an off-balance sheet entry on:
– an off-balance sheet forward receivable:
- Dr 99 Redistribution account of operations with
currency instruments
- Cr 95 Receivables from fixed term operations with
currency instruments – forward leg of the
swap – buy
- an off-balance sheet forward payable:
- Dr 95 Payables from fixed term operations with
currency instruments – forward leg of the swap
– sell
- Cr 99 Redistribution account of operations with
currency instruments

5. When both swap legs mature, the bank makes accounting entries on

- a) the conversion FC sell/buy in current accounts
- Dr 13 Current accounts with banks
- Cr 35 Redistribution account of exchange rate differences
- Dr 35 Redistribution account of exchange rate differences
- Cr 13 Current accounts with banks
- b) charges netted balances on revaluation accounts to the fair value
– a negative difference:
- Dr 31 Fixed term operations with currency instruments – losses from swap revaluation
- Cr 35 Redistribution account of exchange rate differences
- a positive difference:
- Dr 35 Redistribution account of exchange rate differences
- Cr 31 Fixed term operations with currency instruments – gains from swap revaluation

On the swap maturity date, after all accounting entries on a transaction have been made in revaluation accounts of the account group 31 and a currency conversion account in the account group 35, the account balances for that particular transaction must be equal to zero. It is possible to post any halier differences, which may arise upon the foreign currency conversion, to expense accounts (the account group 61), or revenue accounts (the account group 71) for entering losses or gains from derivative operations due to swap revaluation.

Cross Currency Swaps

A cross currency swap is a special type of the currency swap. It is used in the event that an original transaction (e.g. a credit), which needs to be hedged, is denominated in a currency other than the local currency. As a matter of fact, it is an agreement between two contracting parties to exchange future interest payments, but unlike a classical interest rate swap, the nominal amounts, including the interest payments, are effected in two different currencies. A cross currency swap consists of two parts:

1. an interest rate swap, whereby interest rates are exchanged,
2. a currency swap, whereby amounts, as agreed for the beginning and the end of a transaction, are exchanged at an agreed-upon rate.

Interest payments to be made in the same currency are calculated from the nominal amounts (underlying assets). This nominal value may change during the swap life.



The value of a cross currency swap is represented by the present value of a cash flow generated by one swap leg, which is equal to the present value of a cash flow generated by the second swap leg, using an agreed-upon exchange rate. That is why the price depends on agreed-upon forward currency rates and implicitly set forward interest rates.

A cross currency swap is a derivative used to hedge against long-term exchange rate risks and against exchange rate risks due to foreign currencies. The essence of this derivative is widely discussed by practitioners. It is frequently referred to as an interest rate swap. According to the definition given in Decree of the MoF SR, which we cited in introduction to this paper, it is deemed to be a currency derivative. We therefore recommend that a cross currency swap be accounted for as a standard swap, with the addition of accounting entries on mutual payments between counter-parties.

The accounting treatment in banks is the same as for swaps, except that banks open separate subledger accounts for these types of derivative transactions. What is treated differently are incoming and outgoing netting payments on interest legs of the derivative in relation to contra entries in revaluation accounts in the account group 31.

1. If a cross currency swap revaluation is posted to revaluation gain accounts,

– an outgoing netting payment:

Dr 31 Fixed term operations with currency instruments – gains from cross currency swap revaluation

Cr 35 Redistribution account of exchange rate differences

– an incoming netting payment:

Dr 35 Redistribution account of exchange rate differences

Cr 31 Fixed term operations with currency instruments – gains from cross currency swap revaluation

2. If a cross currency swap revaluation is posted to revaluation loss accounts,

– an outgoing netting payment:

Dr 31 Fixed term operations with currency instruments – losses from cross currency swap revaluation

Cr 35 Redistribution account of exchange rate differences

– an incoming netting payment:

Dr 35 Redistribution account of exchange rate differences

Cr 31 Fixed term operations with currency instruments – losses from cross currency swap revaluation

Such an accounting treatment ensures that an outgoing/incoming netting payment (on the interest leg of a cross currency swap) is charged to the cost or revenue, i.e. posted to losses or gains from the cross currency swap revaluation in the account groups 61 Cost of Derivative Operations and 71 Revenue from Derivative Operations.