

ACCOUNTING OF BANKS AND CERTAIN FINANCIAL INSTITUTIONS FROM THE YEAR 2003

PART III DERIVATIVES

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The definition of a derivative is of great importance, since these financial instruments need to be defined very precisely. A derivative is a financial instrument that concurrently meets three conditions:

- its fair value changes depending on changes in interest rate, the price of a security, the price of commodity, foreign currency exchange rates, the price index, a credit rating or credit index, or depending on a similar variable;
- it does not require an initial net investment or requires an initial net investment lower than would be required for other types of financial instruments similarly responding to changes in lending factors and market factors;
- it is agreed and settled as of a future date, with the period from the trade date to the settlement date being greater than that of a spot operation.

This definition implies that derivatives are settled in the future and the period from the trade date to the settlement date is longer for derivatives than is the period applied to spot operations. What is especially important is the condition of there being either no or only a small initial net investment. Not all financial instruments that in the past could have been regarded as derivatives and, from the formal point of view, still are concluded as derivatives, meet the accounting conditions for derivatives.

Depending on the purpose for which they are used, derivatives are divided into:

- **derivatives held for trading**; these are considered to be **speculative derivatives**, if they are
 - concluded by an accounting entity which, under the Securities Act, may not carry out such an activity, or
 - concluded by an accounting entity which, under the Securities Act, may carry out such an activity, but where the price of the derivative has not been agreed by the accounting entity with the intent of market making; derivative market making means that an accounting entity agrees upon derivatives on the basis of a previous quotation of prices by the accounting entity (the bid, offer, and/or ask prices) at

which the accounting unit is willing to conclude the derivatives;

- **hedging derivatives.**

According to the type of financial instrument, derivatives are divided into:

- **fixed term operations**, represented by forwards, futures and swaps;
- **options** yielding benefits to the buyer as a result of a favourable development in the prices of the underlying financial instruments, which will however not have an adverse impact upon the entity in the event of an adverse development in the prices of the underlying instruments.

As regards underlying financial instruments, derivatives are divided into:

- interest rate derivatives, which are derivatives on interest rate instruments;
- exchange rate derivatives, which are derivatives on exchange rate instruments;
- equity derivatives, which are derivatives on equity instruments;
- commodity derivatives, which are derivatives on commodity instruments;
- loan derivatives, which are derivatives on lending instruments.

Unlike IAS 39, the accounting procedures additionally state that a derivative has one or more underlying instruments (positions) and that net settlement is required or allowed, or the delivery of an underlying instrument is allowed, in which case the situation of the receiving party does not differ substantially from the situation in the case of net settlement. This feature is only implicitly present in the IAS 39 definition, since a zero or small initial investment relative to the nominal value of a derivative means that the derivative must contain at least two underlying instruments, one of which is bought and the other sold; otherwise it would not be possible to achieve the zero or small initial investment.

Derivatives are recorded in the off-balance sheet and balance sheet accounts from the trade date to the day of their final settlement or termination, the



exercising of a right, their sale or repurchase. Off-balance sheet accounts are used to record, from the date of the derivative trade, receivables and payables arising from the interest rate, exchange rate, equity, commodity and loan derivatives at the value of the underlying instruments (the accounts of recei-

are cancelled, i.e. off-balance sheet receivables and payables are reversed by means of contra entries.

EXAMPLE

Accounting for a forward term deposit, loan or advance received (for trading):

Item	Date	Accounting event	DR	CR
1	30.11.2001	Agreement on the acceptance of a forward term deposit, loan or advance in three months and for a period of three months in the nominal value of SKK 100 000 at an interest rate of 6.63% with the maturity of three months, i.e. 28.2.2002 a) fair value SKK 7 b) off-balance sheet receivable SKK 98 379 c) off-balance sheet payable SKK 98 372	311 951 991	718 991 952
2	31.12.2001	a) a change in the fair value from SKK 7 to SKK 240, i.e. by SKK + 233 b) a change in the off-balance sheet receivable from SKK 98 379 to SKK 98 773, i.e. by SKK + 394 c) a change in the off-balance sheet payable from SKK 98 372 to SKK 98 533, i.e. by SKK + 161	311 951 991	718 991 952
3	31.1.2002	a) a change in the fair value from SKK 240 to SKK - 256, i.e. by SKK - 496 b) a change in the off-balance sheet receivable from SKK 98 773 to SKK 99 568, i.e. by SKK + 795 c) a change in the off-balance sheet payable from SKK 99 533 to SKK 99 824, i.e. by SKK + 1 291	617 951 991	311 991 952
4	28.2.2002	a) a change in the fair value from SKK - 256 to SKK - 515, i.e. by SKK - 259 b) a change in the off-balance sheet receivable from SKK 99 568 to SKK 100 00, i.e. by SKK + 432 c) a change in the off-balance sheet payable from SKK 99 824 to SKK 100 515, i.e. by SKK + 691	617 951 991	311 991 952
5	4.3.2002	a) transfer of the fair value of SKK 515 to the account Term Deposit, Loan or Advance b) cancellation of the off-balance sheet receivable c) cancellation of the off-balance sheet payable d) receipt of a term deposit, loan or advance	311 991 952 121	136 951 991 136
6	31.3.2002	Interest expense on the received term deposit, loan or advance for March of SKK 346	612	136
7	30.4.2002	Interest expense on the received term deposit, loan or advance for April of SKK 385	612	136
8	31.5.2002	Interest expense on the received term deposit, loan or advance for May of SKK 397	612	136
9	4.6.2002	a) interest expense on the received term deposit, loan or advance for June of SKK 51 b) termination of the term deposit, loan or advance, i.e. a retransfer of SKK 101 694	612 136	136 121

vables and payables from fixed term operations and accounts of receivables and payables from option operations). These receivables and payables are then valued on the basis of changes in risk and non-risk interest rates, spot exchange rates, changes in shares prices and changes in commodity prices. On termination of the trade, the off-balance sheet records

From the trade date to the settlement date, derivatives are recorded at their fair value in the balance sheet accounts of the accounts group 31 – Fixed Term Operations and 39 – Options. In the majority of cases, the fair value of a derivative is zero on the trade date. In the case of options, an option premium measured at fair value is recorded in the balance



sheet accounts (providing that the option premium is not settled at a later point in time, e.g. gradually or only at maturity). It is not permitted to offset positive and negative fair values of different derivatives.

A compound financial derivative is a contractually agreed host contract with an embedded derivative, which influences cash flows or modifies the properties of the host contract in some other way. The embedded derivative is separated out from the host derivative and is recorded in the respective accounts, if the following conditions are concurrently met:

- economic properties and risks associated with the embedded derivative are not closely related to the economic properties and risks of the host contract;
- a financial instrument subject to the same conditions as the embedded derivative would, being a separate financial instrument, meet the definition for a derivative;
- the compound financial instrument is not measured at fair value or is measured at fair value, but revaluation changes are kept on the balance sheet account.

Margins in cash provided on derivatives traded on the local and foreign stock exchanges are recorded in the balance sheet account Clearing of Margins of Stock Exchange Derivatives of the accounts group 31, and itemised by sub-ledger accounts for futures and for options, and further subdivided into margins in cash provided on derivatives on one's own account, which are traded on the local and foreign stock exchanges, and on derivatives for the client, which are traded on the local and foreign stock exchanges. Here are also recorded any settled changes in fair values of derivatives that are traded on the local and foreign stock exchanges.

31* Clearing of margins on stock exchange derivatives (futures, options) on one's own account

31* Clearing of margins on stock exchange derivatives (futures, options) for the client

derivatives valued at positive fair values	derivatives valued at negative fair values
margins on stock exchange derivatives	

Margins invested by way of securities continue to be recorded in the accounts in which they were recorded prior to their provision.

Margins in cash provided on derivatives that are not traded on the local and foreign stock exchanges are recorded in the balance sheet account Other Receivables from Other Banks of the accounts group 13, if this concerns the margins provided to

banks, and in the account Other Receivables from Clients of the accounts group 21, if this concerns the margins provided to accounting entities other than banks.

13* Other receivables from other banks	
21* Other receivables from clients	
provided margins	

Margins provided by way of securities continue to be recorded in the accounts in which they were recorded prior to their provision.

Margins in cash received on derivatives not traded on the local and foreign stock exchanges are recorded in the balance sheet account Other Payables to Banks of the accounts group 13, if concerned are margins received from banks, and in the account Other Payables to Clients of the account group 22, if this concerns margins received from accounting entities other than banks.

13* Other payables to other banks	
22* Other payables to clients	
received margins	

Margins received by way of securities are recorded at their fair value in the off-balance sheet account Collaterals Received of the accounts group 97.

97* Received collaterals – securities	
received margins – securities	

Derivatives are carried at their fair value expressed in the Slovak currency in the balance sheet accounts. The currency in which they are to be settled in the future does not have any influence on the momentary exchange rate risk. The exchange rate risk is only determined by off-balance sheet values. It is because the settlement amount is determined in a certain currency in the contract. This amount may be converted to any other currency at the spot exchange rate.

Accounting records may be kept in a foreign currency, if the following conditions are met:

- this concerns an interest rate derivative in a foreign currency, and
- the accounting entity does not value off-balance sheet receivables and payables from this interest rate derivative on the basis of changes in the interest rates.

The receipt or delivery of an underlying financial instrument is recorded at an agreed price adjusted for the fair value of the fixed term operation or the int-



insic value of the option, which in the case of a call option is represented by the difference between the spot price of the underlying financial instrument and the fair value on the day of exercising the option, if the difference is positive; for a put option it is the difference between the execution price of the option and the spot price of the underlying financial instrument at the exercise of the option, if the difference is positive. The settlement of changes in the fair values of stock exchange derivatives is recorded in the margin account Clearing of Margins of Stock Exchange Derivatives of the accounts group 31.

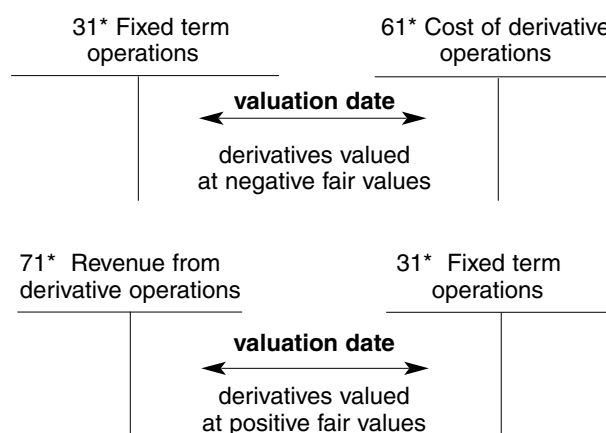
The said procedure ensures that an underlying financial instrument is carried at its fair value as of the date of its receipt or delivery. For example, in the event of a security purchased by way of a forward, the security is recorded at its momentary fair value on the day of the purchase, and not at an originally agreed forward rate. Likewise, in the event of a security sold by way of a forward, a contra entry is made on the security at its momentary fair value on the sale date (in the event that previously it was measured at fair value, such a sale will not affect the results of operations on account of a profit or loss from the sale).

A similar situation would arise in the event of forward term deposits. For example, in the event of a forward term deposit being made, the deposit will be adjusted for the fair value on the day of its making, and subsequent to this the fair value will bear a momentary interest rate, i.e. not the originally agreed interest rate. On termination of the deposit, the value determined in this way will precisely equal the value of a deposit unadjusted for the fair value, but bearing the originally agreed interest rate. Moreover, if the forward term deposit is made in a foreign currency, the fair value will be denominated in SKK in the balance sheet. On the day of making the forward term deposit, it will be converted into the given foreign currency and the deposit made will be adjusted for this converted value. Further procedure is in accordance with the preceding paragraph.

On the day of valuing derivatives, losses or profits arising from changes in fair values will be posted to the account Cost of Derivative Operations of the accounts group 61 or the account Revenue from Derivative Operations of the account group 71 respectively, itemised by:

- **derivatives held for trading**, including embedded derivatives not separated from their host contracts measured at fair value that are closely related to the economic properties and risks of the host contract and are intended for trading;
- **speculative derivatives**, including embedded

derivatives not separated from their host contracts measured at fair value that are not closely related to the economic properties and risks of the host contract and are not intended for trading.



The fair value of a derivative is determined as the market price announced not later than on the valuation date. If the market price cannot be reliably determined, the fair value will be determined by means of an informed estimate. An accounting entity is to set a procedure for calculating the fair value by way of an informed estimate in its internal guidelines.

A corresponding entry on the differences from the valuation of derivatives at fair value will be made, except for hedging derivatives, in the cost or revenue accounts.

Hedging Instruments

The definition of a hedging instrument is in accordance with IAS 39. A hedging instrument of an accounting entity is understood as a hedging derivative used to hedge an accounting entity's assets or liabilities or other financial asset or financial liability meeting the criteria for a derivative. A financial asset or liability not having the nature of a derivative may be used as a hedging instrument only against the exchange rate risk. One hedging instrument may be used to hedge against more than one type of risk. It is possible to use only a certain part of a hedging instrument for hedging purposes.

The primary criterion for hedging is its effectiveness which is based on the offsetting of gains and losses from the hedging instrument and hedged items. An entity must demonstrate this effectiveness by including the derivative among hedging derivatives. This means that in many instances, in line with the third condition for recognising a derivative as a hedging derivative, changes in fair value need to be divided into two parts, namely a part corresponding to the risk hedged against and the remaining part. The first part will be reported in the profit and loss statement (in the



case that the subject of the hedging is the fair value) or in the balance sheet (in the case that the subject of the hedging is the cash flow), and the second part will be reported as a part of the results of operations and will be considered as a speculative part.

If, exceptionally, the situation occurs where starting from a certain moment a hedging derivative no longer meets the precondition of effectiveness of hedging, the validity of the third condition on a hedging derivative, proclaimed to hold true at the start of the hedging, ceases to hold true. From this moment onwards, the derivative will be treated as a speculative derivative.

Hedged instruments may be of the following nature:

- an individual asset, liability or expected future deals;
- several assets, liabilities or expected future deals having similar features with the hedging made against the same risk.

The valuation methods applied to hedging derivatives depend on the type of the hedging relationship, which may be of the following type:

- hedging of fair value;
- hedging of cash flows;
- hedging of a net investment associated with foreign currency equity securities and investments in business entities with a controlling interest and foreign currency equity securities and investments in business entities with a significant interest.

EXAMPLE

Accounting for a forward rate agreement purchased (for hedging purposes) under the fair value hedging method:

Item	Date	Accounting event	DR	CR
A	30.11.2001	a) agreement on the provision of a six-month deposit of SKK 98 379 commencing on 4.12.2001 and ending on 4.6.2002 (an accounting entry on the off-balance sheet receivable and the off-balance sheet payable)	941	942
		b) agreement on the acceptance of a three-month deposit of SKK 98 379 commencing on 4.12.2001 and ending on 4.3.2002 (an accounting entry on the off-balance sheet receivable and the off-balance sheet payable)	941	942
1	30.11.2001	Agreement on the purchase of a forward rate agreement 3 x 6 (three to six) at the nominal value of SKK 100 000 and the interest rate of 6.63%		
		a) fair value SKK 7	311	951
		b) off-balance sheet receivable SKK 98 379 c) off-balance sheet payable SKK 98 372	952 991	991 952
B	4.12.2001	a) settlement of a provided six-month deposit of SKK 98 379 commencing on 4.12.2001 and ending on 4.6.2002	132	121
		b) settlement of a received three-month deposit of SKK 98 379 commencing on 4.12.2001 and ending on 4.3.2002	121	136
		c) cancelling the off-balance sheet entry on the provided deposit	942	941
		d) cancelling the off-balance sheet entry on the received deposit	942	941
C	31.12.2001	a) a change in the fair value of the provided deposit of SKK +79 for December	132	712
		b) a change in the fair value of the received deposit of SKK - 312 for December	612	136
2	31.12.2001	a) a change in the fair value of the derivative from SKK 7 to SKK 240, i.e. by SKK + 233	311	712
		b) a change in the off-balance sheet receivable from SKK 98 379 to SKK 98 773, i.e. by SKK + 394	951	991
		c) a change in the off-balance sheet payable from SKK 98 372 to SKK 98 533, i.e. by SKK + 161	991	952
D	31.1.2002	a) a change in the fair value of the provided deposit of SKK 1 312 for January	132	712
		b) a change in the fair value of the received deposit of SKK - 816 for January	612	136
3	31.1.2002	a) a change in the fair value of the derivative from SKK 240 to SKK - 256, i.e. by SKK + 496	612	951
		b) a change in the off-balance sheet receivable from SKK 98 773 to SKK 99 568, i.e. by SKK + 795	991	311
		c) a change in the off-balance sheet payable from SKK 99 533 to SKK 99 824, i.e. by SKK + 1 291	991	952
E	28.2.2002	a) a change in the fair value of the provided deposit of SKK + 702 for February	132	712
		b) a change in the fair value of the received deposit of SKK - 443 for February	612	136
		c) agreement on the acceptance of a three-month deposit of SKK 100 515 commencing on 4.3.2002 and ending on 4.6.2002 (accounting entries on the off-balance sheet receivable and off-balance sheet payable)	941	942
4	28. 2. 2002	a) a change in the fair value of the derivative from SKK -2 56 to SKK - 515, i.e. by SKK -259 on the balance sheet	612	311
		b) a change in the off-balance sheet receivable from SKK 99 568 to SKK 100 00, i.e. by SKK + 432	951	991
		c) a change in the off-balance sheet payable from SKK 99 824 to SKK 100 515, i.e. by SKK + 691	991	952

Item	Date	Accounting event	DR	CR
F	4. 3. 2002	a) a change in the fair value of the provided deposit of SKK + 50 from 1.3. to 4.3.2002	132	712
		b) a change in the fair value of the received deposit of SKK - 50 from 1.3. to 4.3.2002	612	136
		c) retransfer of the received three-month deposit including the interest, i.e. SKK 100 000	136	121
		d) transfer of a three-month deposit of SKK 100 515 commencing on 4.3.2002 and ending on 4.6.2002	121	136
		e) cancelling the off-balance sheet entry on the received deposit	942	941
5	4.3.2002	a) settlement of the purchased forward rate agreement, i.e. SKK 515	311	121
		b) cancellation of the off-balance sheet receivable	991	951
		c) cancellation of the off-balance sheet payable	952	991
G	31.3.2002	a) revenue from the provided deposit of SKK +346 from 5.3 to 31.3	132	712
		b) cost of the received deposit of SKK -346 from 5.3 to 31.3	612	136
H	30.4.2002	a) revenue from the provided deposit of SKK +385 for April	132	712
		b) cost of the received deposit of SKK -385 for April	612	136
I	31.5.2002	a) revenue from the provided deposit of SKK +397 for May	132	712
		b) cost of the received deposit of SKK +397 for May	612	136
J	4.6.2002	a) revenue from the provided deposit of SKK +51 from 1.6. to 4.6. 2002	132	712
		b) cost of the received deposit of SKK -51 from 1.6. to 4.6. 2002	612	136
		c) retransfer of the received three-month deposit including the interest, i.e. SKK 101 694	136	121
		d) retransfer of the provided six-month deposit including the interest, i.e. SKK 101 701	121	132

The sums of the positive fair values of derivatives are stated under assets and the sums of the negative fair values of derivatives are stated under liabilities on the balance sheet. An account recording differences due to changes in fair values of hedging derivatives under the cash flow hedging method (deferred gains or losses from derivatives) is reported under liabilities, as an item that is either added or deducted from the liabilities (i.e. if this account results in a debit balance, it is not included among assets, but reduces liabilities).

Generally speaking, changes in accounting proce-

dures for banks and certain financial institutions have brought about considerable economic benefits not only for accounting entities, but also for regulators and the public at large. It can be expected that in the future accounting procedures for banks and certain financial institutions, which are already now in line with International Accounting Standards (IAS) will not change, providing that IAS do not change (this concerns the majority of accounting procedures). Accounting procedures that do not conform to IAS will in the future be modified so as to become harmonised with IAS.

Assets BALANCE SHEET Liabilities

derivatives valued at positive fair values	derivatives valued at negative fair values
margins on stock exchange derivatives	deferred gains and losses from the conversion of hedging derivatives to fair values

Cost PROFIT AND LOSS STATEMENT Revenue

cost of hedging derivatives	revenue from hedging derivatives
cost of derivatives for trading	revenue from derivatives for trading

Assets OFF-BALANCE SHEET Liabilities

receivables from derivatives at values of underlying securities	payables from derivatives at values of underlying securities
redistribution accounts for off-balance sheet entries on derivatives	redistribution accounts for off-balance sheet entries on derivatives

Accounts used:

- 121 – Current accounts with the NBS and foreign issuing banks
- 132 – Term deposits with banks
- 136 – Term deposits from other banks
- 311 – Fixed term operations in interest rate instruments
- 612 – Other interest expenses
- 617 – Cost of derivative operations
- 712 – Other interest income
- 718 – Revenue from derivative operations
- 941 – Receivables from spot operations in interest rate instruments
- 942 – Payables from spot operations in interest rate instruments
- 951 – Receivables from fixed term operations in interest rate instruments
- 952 – Payables from fixed term operations in interest rate instruments
- 991 – Redistribution account of operations in interest rate instruments