

Executive Order on the use of derivative financial instruments by investment associations, special-purpose associations and approved restricted associations¹

Executive Order no. 213 of 1 April 2008

The following shall be laid down pursuant to section 89(3), section 99 and section 132(3) of the Investment Associations, Special-Purpose Associations and other Collective Investment Schemes etc. Act, cf. Consolidated Act no. 1499 of 12 December 2007:

Part 1

Scope

1.-(1) An investment association, special-purpose association and approved restricted association may use derivative financial instruments and effect securities lending to hedge risks and as part of portfolio management, provided that the use hereof complies with the provisions of sections 17-27. The provisions shall be complied with at all times during the term of the derivative financial instruments. The performance of securities lending shall be in accordance with the provisions of section 27 of this Executive Order.

(2) If securities or money-market instruments include a derivative financial instrument, cf. section 16, cf. section 2(2), the provisions laid down in sections 17-26 and section 1(1), 2nd clause, shall apply to this derivative financial instrument (the component).

(3) An investment association, special-purpose association, and approved restricted association shall hereinafter be referred to as an "association".

(4) Derivative financial instruments concerning commodities shall not be included.

Part 2

Definitions

2.-(1) In this Executive Order, "derivative financial instruments" shall mean financial instruments, the value of which is dependent on the following underlying assets:

- 1) Securities, money-market instruments, deposits with credit institutions and units in other associations, divisions or investment undertakings, cf. sections 87-90 and sections 106-109 of the Investment Associations, Special-Purpose Associations and other Collective Investment Schemes etc. Act.

¹ This Executive Order contains provisions implementing Council Directive 85/611/EEC of 20 December 1985 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (OJ L 375, p. 3), as partially amended by Directive 2001/107/EC of the European Parliament and of the Council of 21 January 2002 with a view to regulating management companies and simplified prospectuses, (OJ L 41, p. 20); and Directive 2001/108/EC of the European Parliament and of the Council of 21 January 2002 with regard to investments of UCITS (OJ L 41, p. 35), and Council Directive 2007/16/EC of 19 March 2007 implementing Council Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) as regards the clarification of certain definitions.

- 2) Currency.
- 3) Interest rates.
- 4) Financial indexes.

(2) An association or division may use derivative financial instruments that comply with the following criteria:

- 1) the credit risk of an asset, as referred to in section 2(1), may be transferred, independently of the other risks associated with that asset.
- 2) they do not result in delivery or in transfer of assets other than those referred to in sections 87-90 and 106-109 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.
- 3) they comply with the criteria for derivative financial instruments traded OTC laid down in section 89(2) of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.
- 4) their risks are adequately captured by the risk management process of the association, and by its internal control mechanisms.

3.-(1) A reliable and verifiable valuation shall mean a valuation carried out by the association, corresponding to a fair value, and which is not only based on the market quotations of the counterparty, and which fulfils the following two criteria:

- 1) the basis for the valuation is either a reliable up-to-date market value of the instrument, or, if such a value is not available, a pricing model using an adequate recognised methodology,
- 2) verification of the valuation is carried out by one of the following:
 - a) an appropriate third party who is independent of the counterparty of the OTC-derivative, at an adequate frequency and in such a way that the association is able to check it,
 - b) a unit within the association which is independent of the division responsible for purchase and sale of assets, which is appropriately equipped for this purpose.

(2) A "fair value" shall be understood as a reference to the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

4. "Securities loans" shall mean loans of securities against later return of the security or an identical security, which do not involve the transfer of liquidity from borrower to lender.

5.-(1) A "net position" in a security, money-market instrument or index shall mean the difference between the sum of the market value of long positions and the sum of the market value of short positions in the security, money-market instrument or index, including the underlying long and short positions in the security, money-market instrument or index that are associated with the use of the derivative financial instruments based on securities, money-market instruments and indexes.

(2) A "position" in an index shall mean the nominal transaction amount in the relevant index multiplied by the price of the index.

(3) A "long position" shall mean a position that yields a premium in the event of a rise in prices or fall in interest rates for the relevant security, money-market instrument or index. A "short position" shall mean a position that yields a loss in the event of a rise in prices or fall in interest rates for the relevant security, money-market instrument or index.

6. The "total exposure in shares and share indexes" of an association or division shall mean

- 1) the sum of the long net positions in the shares and share indexes owned by the association or division, plus
- 2) the sum of the short net positions in the shares and share indexes owned by the association or division.

7. The "exposure to a given issuer of bonds and money-market instruments or to a given bond index" of the association or division shall mean the difference between

- 1) the market value of the association's or division's long net positions in bonds and money-market instruments with the relevant issuer or based on the relevant bond index, including long and short net positions that are linked to use of derivative financial instruments based on the bonds, money-market instruments and bond indexes, and
- 2) the market value of the association's or division's short net positions with the same issuer or based on the same bond index.

8. The "total exposure in securities, money-market instruments and indexes" of an association or division shall mean

- 1) the total exposure in shares and share indexes, plus
- 2) the sum of the numerical value of the exposures with issuers of bonds and money-market instruments as well as bond indexes.

9.-(1) A "net position in a foreign currency" shall mean the difference between the sum of the long positions and the sum of the short positions in the relevant currency, including the underlying exposures in currencies linked to currency-based derivative financial instruments.

(2) A "long position in a currency" shall mean a position that yields a premium in the event of a rise in the rate of the relevant currency against DKK. A "short position in a currency" shall mean a position that yields a loss in the event of a rise in the rate of the relevant currency against DKK.

(3) The "total currency exposure" of an association or a division shall mean the sum of the long net positions and short net positions in foreign currencies.

(4) "Foreign currency" shall mean any other currency than that in which the association or division is denominated.

10. In the calculation of the net position in accordance with sections 5 and 9 in the underlying assets associated with derivative financial instruments in which there is an option element, the market price of the underlying assets, shall be multiplied by the option's delta.

11.-(1) "The counterparty risk associated with the use of a derivative financial instrument traded OTC" shall mean the positive market value of the derivative financial instrument with an addition for the potential future amounts receivable. This addition shall be calculated in accordance with annex 1.

(2) If an association or division has entered into a netting agreement, and if said agreement meets the conditions for agreements on netting laid down in sections 58h and 58i of the Securities Trading etc. Act, the value of the derivative financial instruments with a negative market value may be set against the value of the derivative financial instruments with a positive market value with the same counterparty in the calculation of the counterparty risk in accordance with subsection (1).

(3) In the calculation of the exposure under subsections (1) and (2), deductions may be made for collateralisation received as securities and money-market-instruments that may be included in the total assets of the association or division.

12. "Position risk" shall mean the risk that an association or division suffers a loss as a result of changes in the market value of a position in securities, money-market instruments, or indexes. The position risk shall be divided into

- 1) the general risk, i.e. the risk that the association or division suffers a loss because the market value of a position changes as a result of conditions related to the market as a whole, and
- 2) the specific risk, i.e. the risk that the association or division suffers a loss because the market value of a position changes as a result of conditions related to the individual issuer of the security or individual security itself.

13. A "synthetic money-market deposit" shall mean a holding of securities that is combined with derivative financial instruments based on the relevant securities, so that the holding is set off by a corresponding short position in the underlying assets of the derivative financial instruments.

14. "Cash and cash equivalents" shall mean demand deposits or deposits with a term of less than one month in banks; paid-in margins deposited in banks, investment companies, stock exchanges, and clearing centres; as well as securities and money-market instruments stated in section 93(1), nos. 2-4 and section 94(1) of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act with variable interest rates or with a remaining term of no more than six months, and which is not part of a synthetic money-market deposit, cf. section 13. Furthermore, synthetic money-market deposits and amounts falling due within three months in the form of called bonds, interest, and declared dividends shall be included.

15.-(1) "Financial indexes" shall mean indexes that fulfil the following criteria:

- 1) they represent an adequate benchmark for the market to which they refer, in that the following criteria are fulfilled:
 - a) the index measures the performance of a representative group of underlying assets in a relevant and appropriate way,
 - b) the index is revised or rebalanced periodically to ensure that it continues to reflect the markets to which it refers following criteria which are publicly available.
 - c) the underlying assets are sufficiently liquid, which allows users to replicate the index, if necessary.
- 2) they are sufficiently diversified, in that the following criteria are fulfilled:
 - a) the index is composed in such a way that price movements or trading activities regarding one component do not unduly influence the performance of the whole index.
 - b) where the index is composed of assets referred to in sections 87-90 and sections 106-109 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act, its composition is at least diversified in accordance with section 95 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.
 - c) where the index is composed of other assets than those referred to in sections 87-90 and sections 106-109 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act, it is diversified in a way which is equivalent to that provided for in section 95 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.
- 3) they are published in an appropriate manner, in that the following criteria are fulfilled:
 - a) their publication process relies on sound procedures to collect prices and to calculate and to subsequently publish the index value, including pricing procedures for components where a market price is not available.

- b) material information on matters such as index calculation, rebalancing methodologies, index changes or any operational difficulties in providing timely or accurate information is provided on a wide and timely basis.

(2) Where a derivative financial instrument is based on a composition of assets that do not fulfil the criteria for a financial index in subsection (1), this shall be considered a derivative financial instrument based on a combination of the assets mentioned in section 2(1) nos. 1-3.

Securities and money-market instruments embedding derivative financial instruments

16.-(1) "Securities and money-market instruments that include derivative financial instruments" shall mean securities and money-market instruments which contain a component that fulfils the following criteria:

- 1) by virtue of that component some or all of the cash flows that otherwise would be required by the security or money-market instrument which functions as host contract can be modified according to a specified interest rate, financial instrument price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, and therefore vary in a way similar to a stand-alone derivative.
- 2) its economic characteristics and risks are not closely related to the economic characteristics and risks of the host contract.
- 3) it has a significant impact on the risk profile and pricing of the security or money-market instrument.

(2) A transferable security or a money-market instrument shall not be regarded as embedding a derivative financial instrument where it contains a component which is contractually transferable independently of the transferable security or the money-market instrument. Such a component shall be deemed to be a separate financial instrument.

Part 3

Calculation of interest-rate risk

17.-(1) An association shall calculate the total interest-rate risk linked to positions in the association's portfolio or the portfolio of the divisions of the association, including the interest-rate risk on payments linked to the use of derivative financial instruments. The interest-rate risk shall be calculated for each currency separately. In the calculation of the total interest-rate risk, the numerical value of the interest-rate risk for the individual currencies shall be summed.

(2) The calculation of the total interest-rate risk in accordance with subsection (1) shall be prepared on the basis of the sum of the changes in the market value of the association's or division's positions in bonds, money-market instruments and bond indexes, including changes in the current value of the payments linked to the use of derivative financial instruments in the event of an increase in the interest rate of one percentage point. The calculation may be based on valuations for duration and modified duration calculated on the basis of the regulations laid down in paragraphs 59-70 in annex 12 of the Danish FSA Executive Order on Capital Adequacy.

Part 4

Use on a covered basis

18. An association or division may use derivative financial instruments on a covered basis.

19.-(1) Use of derivative financial instruments based on a given share shall be regarded as being on a covered basis, if

- 1) they do not increase the association's or division's net position in the share, and
- 2) they do not mean that overall the association or the division obtains a short net position in the share.

(2) Use of derivative financial instruments based on a share index shall be regarded as being on a covered basis, if

- 1) part of the shares held by the association or division comprises shares that are owned by the association or division directly or through units in other associations, divisions or investment undertakings, cf. section 90 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act, and which are listed on the same stock exchange or which are traded on the same market as the shares in the index,
- 2) the association or division has not used other derivative financial instruments that are covered by shares in this part of the shareholding,
- 3) it is extremely unlikely that the derivative financial instruments will increase the loss of the association or division in the event of a reduction in the value of the relevant shareholding, and
- 4) it is extremely unlikely that the derivative financial instruments will lead to a net loss in holdings and instruments for the association or division in the event of an increase in the value of the relevant shareholding.

(3) Use of derivative financial instruments based on shares or share indexes shall also be regarded as being on a covered basis, if

- 1) the association or division has cash and cash equivalents corresponding to the sum of the numerical value of the short and long net positions in the underlying shares or share indexes, and
- 2) use of derivative financial instruments does not mean that the association or division in total obtains a short net position in any share or share index that is not covered by subsection (2).

(4) Subsection (3), no. 1, shall not cover elements of cash and cash equivalents that hedge derivative financial instruments based on bonds in accordance with section 20(3).

(5) Acquisition of warrants shall be on a covered basis, either when this is in connection with the acquisition of the bonds to which they were associated when issued, or when the relevant warrants reach a strike price that is a maximum of 1 percent of the value of the underlying shares at the time of acquisition.

20.-(1) Use of derivative financial instruments based on bonds, bond indexes, money-market instruments, or interest shall be regarded as being on a covered basis, if they

- 1) do not increase the total interest-rate risk of the association or division in any currency,
- 2) do not mean that the association or division obtains a negative interest-rate risk in a foreign currency,
- 3) do not increase the exposure of the association or division with a given issuer of bonds and money-market instruments or a given bond index, and
- 4) do not mean that the association or division obtains a negative exposure with a given issuer of bonds and money-market instruments or a given bond index.

(2) Subsection (1), nos. 3 and 4 shall not cover indexes exclusively based on the securities and money-market instruments stated in section 93(1), no. 4a-c of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.

(3) Irrespective of the criteria in subsection (1), the use of derivative financial instruments is based on bonds, debt securities indexes, money-market instruments or interest rates on a covered basis when the association or division has cash and cash equivalents corresponding to the sum of numeric values of short and long net positions in the underlying bonds, debt securities indexes, money-market instruments or interest rates.

(4) Subsection (3) shall not cover elements of cash and cash equivalents that hedge derivative financial instruments based on bonds or share indexes in accordance with section 19(3).

21. Use of derivative financial instruments based on currencies shall be regarded as being on a covered basis, if they do not increase the total currency exposure of the association or division.

Part 5

Use on a non-covered basis

22.-(1) An association or division may, in addition to on a covered basis, cf. part 4, use derivative financial instruments, provided

- 1) the total exposure in securities, money-market instruments and indexes linked to derivative financial instruments that are not on a covered basis at no time exceeds 100% of the total assets of the association or division,
- 2) the sum of the short net positions in securities and money-market instruments linked to derivative financial instruments that are not on a covered basis, does not exceed the sum of
 - a) cash and cash equivalents,
 - b) 90% of the market value of the holding of securities and money-market instruments covered by section 93(1), nos. 2 and 4, and section 94(1) of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act, except for securities covered by the definition of cash and cash equivalents, and
 - c) 75% of the market value of the holding of shares and bonds that are part of an index approved by the Danish FSA pursuant to section 95 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.
- 3) the total numerical value of the interest-rate risk does not exceed the numerical value of an interest-rate risk that the association or division could achieve without using derivative financial instruments, and
- 4) the total foreign-currency exposure of the association or division does not exceed the assets of the association or division.

(2) Section 1, no. 2a shall not cover elements of cash and cash equivalents that hedge derivative financial instruments used on a covered basis in accordance with section 19(3) and section 20(3).

Part 6

Use of VaR models

23.-(1) An association may use VaR models (Value at Risk models) to calculate the position risk connected to the use of derivative financial instruments by the association or in one or several of the association's divisions. Such use requires that the conditions in annex 2 are met.

(2) The Danish FSA shall, before the implementation, be informed about the association's intention to use VaR models and the time of commencement of use. The information shall include a description of the divisions, including sub-portfolios, in which the position risk is calculated by VaR models.

(3) Use pursuant to subsection (1) may be restricted to only cover VaR models to calculate position risks for a sub-portfolio in an association or division, including separately for shares, debt instruments or foreign currency respectively. Use pursuant to the 1st clause may furthermore be limited to only relating to VaR models to calculate the general risk.

(4) Use pursuant to subsection (1) shall mean that the association or division is not covered by the provisions of section 22, cf. however section 24(2)-(4).

24.-(1) An association or division which uses VaR models pursuant to section 23 may, in addition to using derivative financial instruments on a covered basis, use derivative financial instruments, provided the position risk of the association or division does not then exceed 200% of the position risk of the association or division without the use of derivative financial instruments.

(2) When using VaR models to calculate the position risk of a sub-portfolio in an association or division, cf. section 23(2), 1st clause, subsection (1) shall be complied with for the sub-portfolios covered by VaR models, and the provisions of section 22 shall be complied with for the sub-portfolios not covered by VaR models.

(3) If the use only includes VaR models to calculate general risk, cf. section 23(2), subsection (1) and section 22(1), no. 2 and section 22(2) shall be complied with.

(4) Notwithstanding the provisions of subsections (1)-(3), an association or division which uses VaR models to calculate position risk may use derivative financial instruments, when section 22(1), no. 1 has been complied with.

Part 7

Calculation of investments covered by placement limits etc.

25. Associations and divisions shall, when using derivative financial instruments, make a calculation of the investments covered by the placement limits in sections 93, 102-104 and 106-109 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act in accordance with the provisions of sections 97 and 98 of said Act, cf. however section 26 below.

26. Securities and money-market instruments received as collateral for counterparty risk on contracts traded OTC, and which the association deducts in the calculation of counterparty risk in accordance with section 11(3), shall be included in the calculation of the association's or division's investments covered by placement limits in sections 93, 102-104 and 106-109 of the Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act.

Part 8

Securities lending

27. Associations, which carry out securities lending, shall ensure that there is adequate guarantee or collateral for the securities lent and the other amounts receivable following from the terms of the loan.

Part 9

Penalties and entry into force

28. Any person violating section 1(1), sections 17 and 22, section 23(2) section 24(1)-(3) and sections 25-27 shall be liable to a fine.

29.-(1) This Executive Order shall enter into force on 14 May 2008.

(2) At the same time, Executive Order no. 443 of 14 May 2007 on the Use of Derivative Financial Instruments by Investment Associations, Special-Purpose Associations, Restricted Associations and Innovation Associations, shall be repealed.

The Danish Financial Supervisory Authority, 1 April 2008

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Additions for potential future exposure in items with counterparty risk

- 1) The calculation of the exposure to counterparty risk follows the steps below:
 - a) Contracts are calculated at market value in order to obtain the current replacement costs for all contracts with a positive value.
 - b) In order to reach a figure for the potential future credit exposure, the nominal principal amounts of the contracts or the underlying values are multiplied by the percentages in table 1. Swaps based on two floating rates in the same currency are exempt from this, in that only the current replacement costs must be calculated.
 - c) The sum of current replacement costs and the potential future credit exposures totals the size of the counterparty risk.

| Remaining maturity | Interest-rate contracts | Exchange rate contracts | Contracts concerning shares | Other contracts |
|---|-------------------------|-------------------------|-----------------------------|-----------------|
| One year and under | 0 percent | 1 percent | 6 percent | 10 percent |
| More than 1 year but not exceeding five years | 0.5 percent | 5 percent | 8 percent | 12 percent |
| More than five years | 1.5 percent | 7.5 percent | 10 percent | 15 percent |

- 3) A contract concerning units in other associations, divisions or investment undertakings, cf. section 90 of Investment Associations and Special-Purpose Associations and other Collective Investment Schemes etc. Act, where the association has knowledge about the asset categories in which the scheme may invest, may be considered as a contract concerning the asset category among the categories in which the scheme may invest, which has the highest percentage in accordance with table 1 in paragraph 1.

Use of VaR models

Before an association or division may use VaR models, the board of directors must ensure that the requirements in this annex are met and documented. The Danish Financial Supervisory Authority (FSA) may request the association or division to submit a report on how the requirements are to be met.

Investment associations, special-purpose associations and restricted associations, as well as divisions of these are hereinafter referred to as "the association".

Qualitative requirements

- 1) The models of the association may only be used to calculate position risks, if the internal risk management and control procedures of the association are adequate and are carried out appropriately. This means that the following qualitative requirements must be fulfilled:
 - a) The models must be closely integrated in the daily risk management of the association and must form the basis of risk reporting to the board of directors and board of management of the association.
 - b) The association must have a risk control function, which is independent of the trading function, and which reports directly to the board of management of the association. The risk control function is responsible for designing, updating and implementing the risk-management systems of the association, including the VaR models. Every day, the function must prepare and analyse reports regarding the results of the models, including reports regarding compliance with the limits set in instructions etc. The risk function must also be responsible for the initial and ongoing validation of the VaR models.
 - c) The board of directors and board of management of the association must be active in the risk control process, and the daily reports from the risk control function must be processed at a management level with sufficient authority to be able to reduce the positions and risks of the association.
 - d) The association must have an adequate number of qualified employees.
 - e) The association must lay down control procedures to ensure that the written instructions and procedures of the association regarding use of models are complied with and monitored.
 - f) The association must have adequate historical documentation that the models have previously calculated the association's risks with reasonable accuracy.
 - g) The association must carry out frequent comprehensive stress tests, and the results of these must be reviewed by the board of management. The results of the completed stress tests must be reflected in the instructions and limits stipulated by the board of directors and the board of management. The association's stress tests must in particular cover conditions such as lack of liquidity during pressured market conditions, concentration risks, markets on where there cannot be trading, the risk of unforeseen events (event risks) and the risk of sudden breach, non-linear products, positions that are "deep out-of-the-money", positions with bid/offer spreads and other risks that are not sufficiently included in the VaR models. The buffers, which the models are exposed to, must take into account the composition of the portfolios and the time that it will take to hedge or control risks during serious market conditions. The association is to use hypothetical portfolios to ensure that the models are able to take into account the special structural conditions that might occur, such as base risks and concentration risks. The association's stress tests must not comprise risk types to which the association is not exposed or is only to an insignificant extent exposed.
 - h) The auditors must carry out an independent review of the VaR models.
 - i) The association must regularly carry out reviews of the VaR models and risk

management in general, and reviews must as a minimum include the following:

- i. Whether documentation of the models, risk management, and organisation and tasks of the risk control function is complete.
 - ii. How the position risk calculated by the models is integrated into day-to-day risk management, and whether management reporting is complete.
 - iii. The association's procedures for approving methods of risk calculation and valuation, as well as connected systems, used by the trading and back-of-office, functions.
 - iv. The position risks, covered by the methods of risk calculation, and validation of any significant changes, in the methods of risk calculation.
 - v. The correctness and adequacy of the calculation of the positions of the association, the accuracy of the volatilities and correlations calculated, as well as the accuracy of the calculation of risk sensitivities.
 - vi. The control procedures that the association uses in assessment of whether the sources of information applied in the models are consistent, up-to-date and reliable, as well as whether such sources of information are independent.
 - vii. The procedures for preparation of back tests, which are carried out in order to assess the accuracy of the models.
- 2) The association shall have procedures to ensure that its VaR models are adequately validated by persons with appropriate qualifications who are independent of the development process of the models, in order to ensure that the models are well-functioning and take sufficient consideration of all material risks. This validation must be made in connection with the models' development and when significant model changes are carried out. Validation must, furthermore, be carried out regularly, but especially in connection with significant structural market changes or changes in the composition of the portfolio, which may mean that the models are no longer adequate. In step with the development of methods, techniques and market practice, the association must ensure that the models are in compliance with these. Validation of the models must, in addition to back tests, as a minimum include the following:
- a) The association must carry out tests that show that the conditions on which the models are based are appropriate and neither underestimate nor overestimate risks.
 - b) The association must, in addition to the back tests specified in paragraph 13, carry out its own model validation tests concerning the risks and structures that characterise the portfolios.

Quantitative requirements

- 3) As a minimum, the VaR models of the association must apply the following quantitative criteria in the calculation of position risks:
- a) Calculation of the potential risks of the association (the VaR figure) on at least a daily basis.
 - b) Uniform 99 % confidence interval.
 - c) Holding period corresponding to 30 days.
 - d) Effective observation period of no less than one year, unless a shorter observation period is justified as a result of a significant increase in price volatility.
 - e) No less than quarterly updating of correlations, volatilities etc.

Back tests

- 4) The association must check the accuracy and results of the models by carrying out back tests. Back tests are effected by comparing the daily potential risk of losses (the VaR figure), calculated using the association's VaR models for the daily closing positions of the portfolio, with the daily change in the value of the portfolio at the end of the subsequent working day. The association must be able to perform back tests on the basis of both actual and hypothetical changes in the value of the portfolio.
- 5) Back tests on the basis of hypothetical changes in the value of the portfolio are performed by comparing the daily closing value of the portfolio assuming unchanged positions, with the value of the portfolio at the end of the subsequent day, i.e. the trading carried out on

the subsequent day is ignored. Back tests on the basis of actual changes in the value of the portfolio are carried out by comparing the daily closing value of the portfolio of the association with the closing value of the portfolio at the end of the subsequent day, i.e. the trading carried out on the subsequent day is accounted for, but setting aside earnings in the form of fees, commissions and net interest rates.

- 6) The association must take appropriate measures to improve its back tests, if these are deemed to be inadequate.

Risk factors

- 7) The VaR models of the association must take account of an adequate number of risk factors, depending on the activity level of the association in the respective markets, including but not limited to significant risks regarding options and option-like positions. The following risk factors must in particular be included:
 - a) For interest-rate risks, the VaR models must apply a number of risk factors corresponding to the interest rates in the individual foreign-exchange rates in which the association has interest-rate-sensitive positions. The association must estimate the yield curves by applying generally accepted methodologies. For significant interest-rate risks in the most important currencies and on the most important markets, the yield curve must - to the extent that the positions allow it - be divided into no less than six maturity segments in order to take account of different volatilities along the interest curve. The VaR models must also highlight the risk that the correlation between different yield curves is not complete.
 - b) For exchange-rate risks, the VaR models must apply risk factors corresponding to the individual foreign currencies in which the association has positions.
 - c) For share-price risks, the VaR models must apply no less than one separate risk factor for each of the stock markets in which the association has significant positions.
 - d) The association may apply empirical correlations within the risk categories and across risk categories, if the systems of the association to calculate and assess correlations are well-functioning and appropriately implemented.

Calculation of specific risks

- 9) The association may choose to use the VaR models to calculate specific risk for shares and debt instruments. In addition to the other requirements in this annex, the models must fulfil the following:
 - a) Explain the historical price fluctuations of the portfolio.
 - b) Take into account the concentration, expressed in size and changes, of the composition of the portfolio.
 - c) Be able to withstand unfavourable changes in assumptions.
 - d) Be validated through back tests aimed at assessing whether the specific risks are accurately considered. If back tests are carried out on the basis of relevant sub-portfolios, these must be selected consistently.
 - e) Take into account name-related base risks, i.e. the association must show that the models are sensitive to differences between uniform but non-identical positions.
 - f) Take account of the risk associated with unforeseen events (event risk).
- 10) The association's VaR models must, through careful estimates, calculate the risks as a consequence of less liquid positions and positions with limited price transparency using realistic market scenarios. In addition, the models must meet the minimum data standards. Proxies must be appropriately careful and may only be used where available data are not sufficient or do not reflect the real volatility of the position or portfolio.
- 11) In step with the development of methods, techniques and market practice, the association must ensure that the VaR models are developed in compliance with these.

Calculation of the association's position risk

- 12) If the association uses VaR models, the position risk of the items covered by these models comprises the daily calculated VaR figure.
- 13) The association must calculate the day-to-day excess values uniformly using back tests

on the basis of either actual or hypothetical changes in the value of the portfolio, cf. paragraph 5. An excess is when a daily change in the value of the portfolio exceeds the related potential risk (the VaR figure) which is calculated using the VaR models of the association.

- 14) In order for the Danish FSA to regularly check the reliability of the models, the association must inform the Danish FSA about the excess of the daily back tests as quickly as possible, and not later than after five working days.
- 15) If the VaR models have many excesses, indicating that they are not adequately accurate, the models may not be used for calculation of the position risk. The Danish FSA may alternatively order the association to take the measures necessary to ensure that the VaR models are immediately improved.