

**11**  
**DECREE**  
**of Národná banka Slovenska**  
**of 27 September 2011**

**on risks and the risk management system, risk measurement and the calculation of  
global exposure and counterparty risk**

In accordance with Article 99(2), Article 100(9) and (10), Article 102(7), Article 104(7), Article 105(6) and Article 106(8) of Act No 203/2011 Coll. on Collective Investment (hereinafter "the Act"), Národná banka Slovenska stipulates as follows:

**FIRST SECTION**  
**GENERAL PROVISIONS**

**Article 1**

This Decree governs:

- a) additional risks recognised for risk management purposes pursuant to the Act (Article 3);
- b) the method of covering the commitments related to transactions in financial derivative instruments in a standard common fund (Article 37);
- c) details about the risk management system for the management of assets in a standard common fund pursuant to Article 100(1) of the Act and about the risk management function (Articles 4 to 14);
- d) additional elements of the prospectus and annual asset management report of a standard common fund in regard to risk measurement and risk management in the fund (Article 34);
- e) details about
  - 1. the conduct of back testing pursuant to Article 102(3)(b) of the Act (Article 28),
  - 2. the conduct of stress testing pursuant to Article 102(3)(c) of the Act (Article 29);
- f) the qualitative and quantitative requirements for stress testing (Articles 30 and 31);
- g) methodologies for the conversion of financial derivative positions pursuant to Article 104(2) of the Act for different types of financial derivative instruments (Article 15);
- h) criteria for determining financial derivative instruments that do not generate incremental exposure for a standard common fund portfolio pursuant to Article 104(3) of the Act (Article 16);
- i) how to take into account netting and hedging arrangements pursuant to Article 104(4) of the Act when calculating global exposure using the commitment approach (Articles 17 to 20);
- j) how to take into account of techniques and instruments referred to in Article 104(6) of the Act when calculating global exposure using the commitment approach (Article 21);
- k) how to calculate global exposure using the relative value at risk (VaR) approach (Article 22);
- l) how to calculate global exposure using the absolute VaR approach (Article 23(1) and (2));
- m) quantitative and qualitative requirements for the VaR approach (Articles 24 to 27 and Article 32);

- n) the maximum limit that may not be exceeded when using the absolute VaR approach (Article 23(3));
- o) other details of global exposure calculation using the VaR approach (Article 33);
- p) requirements for the collateral that a management company may use to reduce counterparty risk exposure (Article 35);
- q) rules for the calculation of limits referred to in Article 89 of the Act (Article 36).

## **Article 2 Definitions**

For the purposes of this Decree:

- a) 'risk mitigation in a standard common fund' means a procedure used by the fund's management company in the management of the fund's assets to reduce risk, in particular market risk, by means of hedging arrangements, according to the fund's risk profile, and to reduce counterparty risk exposure by receiving collateral in over-the-counter (OTC) transactions in financial derivative instruments;
- b) 'risk-free assets' means the assets that are generally accepted in the financial market to be assets providing a risk-free return, such as short-dated high quality government bonds with a remaining maturity not exceeding three months;
- c) 'right to subscribe' means the right of existing shareholders of a corporation to subscribe for a new issue of common shares before it is offered to the public, normally for a price that is lower than the public offering price;
- d) 'warrant' means a security entitling the holder to subscribe or buy an underlying instrument for an agreed price at any time before it matures, or on its maturity date; the purchase may be settled by delivery of the respective assets or in cash.

## **SECOND SECTION ADDITIONAL RISKS RECOGNISED FOR RISK MANAGEMENT PURPOSES, AND DETAILS ABOUT THE RISK MANAGEMENT SYSTEM FOR THE INVESTMENT MANAGEMENT OF A STANDARD COMMON FUND AND ABOUT THE RISK MANAGEMENT FUNCTION**

### **Article 3 Additional risks**

Additional risks recognised re distinguished for risk management purposes, in addition to the risks specified in Article 99(1) of the Act include in particular:

- a) credit risk, meaning the risk of loss arising from a debtor or other contractual party defaulting on its obligations under agreed conditions; credit risk also includes country risk, concentration risk, settlement risk, and counterparty risk;
- b) country risk, meaning the risk of loss arising from a national competent authority or central bank not being able or willing to fulfil its obligations towards non-resident entities, and from other debtors resident in that country not being able, due to their residency, to fulfil their obligations towards non-resident entities;
- c) concentration risk, meaning the risk of loss arising from the fact that transactions in the assets of a standard common fund are concentrated with either an entity, a group of entities with close links, entities in a particular geographic area, or entities in a particular sector of the economy.

- d) settlement risk, meaning the risk of loss arising from a transaction not being settled in accordance with the agreed conditions;
- e) general market risk, meaning the risk of loss arising from changes in the general level of market prices or interest rates;
- f) specific market risk, meaning the risk of loss arising from the price movement of the financial instrument of a particular issuer which is caused not by a change in the general level of market prices or interest rates, but solely by factors relating to the issuer of the financial instrument or, in the case of financial derivative instruments, to the issuer of the underlying instrument;
- g) event risk, meaning the risk of loss arising from unforeseeable circumstances that will cause the market value of a financial instrument to fall in an abrupt or sudden way when compared with the behaviour of the general market, and in a way which goes well beyond the normal range of fluctuations in value; event risk covers, for instance, the migration risk for interest rate products or the risk of significant changes or jumps in equity prices;
- h) interest rate risk, meaning the risk of loss arising from interest rate movements and their effect on the asset value of a standard common fund;
- i) specific interest rate risk, means the risk of loss arising from the price movement of an interest rate instrument which is caused by factors relating to the issuer of the instrument or, in the case of financial derivative instruments, to the issuer of the underlying instrument;
- j) currency risk, meaning the risk of loss arising from exchange rate movements and their effect on the value of the assets in a standard common fund which are denominated in the respective currency;
- k) equity risk, meaning the risk loss arising from the equity price movements and their effect on the asset value of a standard common fund;
- l) general equity risk, meaning the risk of loss arising from an equity instrument's price movement which is caused by price movements of equity securities and not by factors relating to the issuer of the equity instrument;
- m) specific equity risk, meaning the risk of loss arising from an equity instrument's price movement which is caused by factors relating to the issuer of the instrument or, in the case of financial derivative instruments, to the issuer of the underlying instrument;
- n) commodity risk, meaning the risk of loss arising from commodity price movements and their effect on the asset value of a standard common fund;
- o) option risk, meaning the risk of loss arising from a change in the value of variables that affect an option price; the main components of option risk are delta risk, gamma risk, vega risk, rho risk and theta risk, where
  1. delta risk means the risk of loss arising from a change in an option price caused by a change in the price of the underlying instrument,
  2. gamma risk means the risk of loss arising from a change in an option price caused by a change in sensitivity to price movements of the underlying instrument,
  3. vega risk means the risk of loss arising from a change in an option price caused by a change in the price volatility of the underlying instrument,
  4. rho risk means the risk of loss arising from a change in an option price caused by the movement of a risk-free interest rate,
  5. theta risk means the risk of loss arising from a change of an option price caused by a change in the remaining period until the possible exercise of the option.

**Article 4**  
**Details of the risk management system**

The risk management system includes all processes related to the identification, measurement and management of market risk, operational risk, liquidity risk, counterparty risk, and all other significant risks; it consists mainly of:

- a) the risk management process,
- b) the risk management policy,
- c) the governance and organisation of the risk management process,
- d) risk management information flows and the terms for the submission, content and frequency of reports.

## **Article 5**

### **Risk management process**

The risk management process comprises the following activities:

- a) the establishment of conditions for risk management, including in particular:
  1. developing a risk management policy pursuant to Article 6,
  2. ensuring that the governance and organisation of risk management pursuant to Article 7 is proportionate to the nature, scale and complexity of the activities of the management company and of the standard common funds it manages, and allows the adopted risk management policy to be implemented,
  3. generating appropriate information flows and submitting reports pursuant to Article 8,
  4. generating an appropriate system for the execution of transactions and producing internal regulations pursuant to Article 9,
  5. generating a system for the application of new financial instruments as part of the investment management of a standard common fund pursuant to Article 10;
- b) the identification, measurement, monitoring and mitigation of the risks of a standard common fund portfolio, including in particular:
  1. specifying methods for the identification of risks,
  2. specifying methods for the measurement of risks appropriate to the nature, scale and complexity of the activities of the management company and of the standard common funds it manages; a selected risk measurement method may not be changed without a reason,
  3. specifying methods for the setting of limits and monitoring of risks,
  4. specifying transactions, activities and procedures for risk mitigation, and
- c) appropriately adapting the internal control mechanism to the risk management system in accordance with Article 11.

## **Article 6**

### **Risk management policy**

(1) Risk management policy comprises the main goals and principles used by a management company in the management of risks facing investors in a standard common fund; it includes in particular:

- a) a more precise definition of risks formulated by the management company's as part of risk management;
- b) the risk exposure objectives set by the management company for its standard common funds according to their risk profiles, meaning in particular:
  1. the acceptable degree of risk,
  2. expected consequences resulting from exposure to the acceptable degree of risk;
- c) principles and methods for periodic identification of significant risks;

- d) procedures, instruments and measures enabling the appropriate measurement of significant risks;
- e) methods of calculating global exposure;
- f) the allocation of roles and responsibilities of different parts of the risk management system relating to risk management in the management company;
- g) the terms for interaction between the risk management function and investment management function in order to keep the standard common fund risk profile under control and consistent with its investment strategy;
- h) the terms, content and periodicity of reports on the performance of the risk management function submitted to the management company's Board of Directors, general proxies, managerial staff members reporting to the Board of Directors who are responsible for specialist activities defined in the Act (hereinafter referred to as the "Senior Management"), and the Supervisory Board;
- i) the types of limits that the management company is to apply and the principles for the selection and determination of other limits;
- j) principles for the classification and use of new financial instruments pursuant to Article 10;
- k) the periodicity of the regular review of the risk management policy.

(2) In addition to the goals and principles referred to in paragraph (1), the risk management policy stipulates the identification of unit(s), department(s) and personnel in charge of carrying out the risk management function tasks. For this purpose the personnel shall be identified at least in terms of the number of persons and their roles.

(3) The risk management policy is reviewed and approved in the form of a separate internal regulation, or as part of internal regulations related to the management company's organisation which clearly identify risk management tasks, responsibilities and operating procedures.

## **Article 7**

### **Governance and organisation of the risk management process**

- (1) The governance and organisation of the risk management process include in particular:
- a) ensuring that information from the risk management system is appropriately taken into account in decision-making processes of the management company, and establishing suitable conditions for risk management in the management company;
  - b) ensuring appropriate risk management procedures for due and accurate identification, management and monitoring of all significant risks resulting from investments of standard common funds and from activities of the management company;
  - c) ensuring that the risk management policy is implemented at all relevant management levels in the management company;
  - d) establishing an organisational structure that enables the approved risk management policy to be implemented;
  - e) ensuring that the activities and responsibilities of the management company's organisational units and its staff members are separated at both the organisational and personnel level, appropriate in the view of the nature, scale and complexity of the activities of the management company and the standard common funds it manages, in order as far as possible to prevent conflicts of interest, meaning in particular that the management company's units/staff members that are competent to execute transactions representing a risk exposure for a standard common fund (hereinafter referred to as "the

investment management function") are separated from activities related to transactions settlement and the risk management function; and ensuring that the risk management function is independent from operating units, where appropriate and proportionate in view of the nature, scale and complexity of activities of the management company and the standard common funds it manages;

- f) ensuring the adequate resources necessary for the implementation of the approved risk management policy, in particular the financial resources and personnel in charge of carrying out tasks of the risk management function, with the skills, knowledge and expertise needed to fulfil the duties that are placed upon them as defined in the Act; and ensuring cover for these staff members;
- g) ensuring a balance between the incentivisation of staff members, remuneration of staff members, and risk management policy, and in particular ensuring that the method of determining the remuneration of the staff members responsible for the performance of the risk management function shall not be likely to compromise their objectivity;
- h) generating appropriate information flows between the risk management function and other organisational units of the management company pursuant to Article 8;
- i) ensuring that the regular communication channels are established between the risk management function and portfolio managers responsible for investment management in order to ensure effective functioning of the risk management process; portfolio managers are responsible for taking investment decisions compatible with the risk limits system; on the other hand measurement of the corresponding risks and monitoring of the risk limits system is assigned to the risk management function;
- j) ensuring an appropriate extent that all relevant staff members of the management company are acquainted with the approved risk management policy.

(2) The separation of the investment management function and risk management function referred to in paragraph (1) shall be implemented up to the highest possible management level.

(3) For investment management purposes, 'portfolio manager' means a staff member of the management company who as part of the investment management function manages the investments of a standard common fund.

(4) For the purposes of paragraph (1)(e), 'operational unit' means an organisational unit of the management company which ensures the administration and promotion of common funds and the distribution of units.

(5) Where separation of the risk management function as referred to in paragraph (1)(e) is not appropriate or proportionate in the view of the nature, scale and complexity of the activities of the management company and the standard common funds it manages, the risk management policy, in addition to the objectives and principles mentioned in Article 6, precisely specify other safeguards against conflicts of interest that allow for the independent performance of risk management activities.

(6) For the purposes of managing the credit risk exposure of standard common funds, the management company's transaction settlement activities and credit risk management activities shall be performed separately.

(7) For the purposes of paragraph (6), 'transaction settlement activities' means in particular:

- a) checking the elements of executed transactions;
- b) producing accounting documents and recording transactions;
- c) monitoring compliance with the contractual terms of transactions;
- d) ensuring the financial settlement of transactions.

(8) For the purposes of paragraph (6), 'credit risk management activities' means in particular the following activities:

- a) adopting internal limits on the credit risk exposure of standard common funds, as part of the internal limits system referred to in Article 102(3)(d) of the Act and in accordance with the risk profiles adopted for the funds; and checking compliance with these internal limits;
- b) adopting separate internal limits for counterparties in OTC transactions in financial derivatives and adopting conditions applicable where collateral is received or provided to the credit or debit of a standard common fund portfolio pursuant to Article 106(4) and (5) of the Act; and checking compliance with these separate internal limits;
- c) evaluating the economic situation of the issuers of securities held by standard common funds and of counterparties to OTC financial derivatives;
- d) adopting methods and procedures for credit risk management;
- e) identifying, measuring, monitoring and mitigating credit risk;
- f) processing and providing information on credit risk for the purposes of credit risk management and the decision-making processes of the management company.

(9) For the purposes of the managing the market risk exposure of standard common funds, the management company's transaction settlement activities and market risk management activities shall be performed separately.

(10) For the purposes of paragraph (9), 'transaction settlement activities' means in particular:

- a) checking the elements of executed transactions;
- b) sending and receiving confirmations for executed transaction;
- c) ensuring the financial and securities settlement of transactions;
- d) producing accounting documents and recording transactions.

(11) For the purposes of paragraph (9), 'market risk management activities' means in particular the following activities:

- a) adopting internal limits on the market risk exposure of standard common funds, as part of the internal limits system referred to in Article 102(3)(d) of the Act and in accordance with the risk profiles adopted for the funds; and checking compliance with these internal limits;
- b) adopting methods and procedures for market risk management;
- c) adopting methods, procedures and models for assessing the value of positions giving rise to market risk;
- d) assessing the valuation of positions giving rise to market risk;
- e) identifying, measuring, monitoring and mitigating market risk;
- f) processing and providing information on market risk for the purposes of market risk management and the decision-making processes of the management company.

(12) For the purposes of operational risk management, management companies shall in particular:

- a) adopt methods and procedures for operational risk management;

- b) identify, estimate and monitor operational risk;
- c) classify operational risk events;
- d) take measures to minimise operational risk, processing and providing information on operational risk for management and decision-making purposes.

## **Article 8**

### **Risk management information flows and reporting conditions**

Information flows and reporting conditions pursuant to Article 4(d) shall involve the following activities in particular:

- a) the provision of regular information from the risk management function to the Senior Management on the current level of risk exposure of standard common funds; the periodicity, currency and granularity of the information provided shall be such that enables efficient management of risks that significantly affect the performance and results of common funds, and the information shall include in particular:
  - 1. evaluation of levels and trends in risk development,
  - 2. comparison of risks and expected returns,
  - 3. verification of whether the risk level is in line with the internal limits,
  - 4. evaluation of the validity, appropriateness and fulfilment of assumptions used in risk measurement,
  - 5. evaluation of the results of stress testing and back testing;
- b) ensuring that all staff members responsible for performance of the risk management function have access to current and reliable information for risk management;
- c) ensuring communication between staff members responsible for performance of the risk management function and other units of the management company, especially staff members responsible for the investment management function and members of the company's Senior Management;
- d) the Board of Directors periodically evaluating risk level information and subsequently informing the staff members responsible for performance of the risk management function, other units of the management company and other members of the company's Senior Management of any changes to the risk management process.

## **Article 9**

### **Transaction execution system and internal regulations**

(1) For risk management purposes, management companies shall have in place an appropriate system for executing transactions in assets held by their standard common funds and for performing activities in accordance with the adopted risk management policy and with the methods selected for the identification, measurement, monitoring and mitigation of risks.

(2) The system for executing transactions and performing activities and the procedure for the identification, measurement, monitoring and mitigation of risks shall be laid down in internal regulations of the management company issued in accordance with the approved risk management policy.

## **Article 10**

### **New financial instruments**



(1) For risk management purposes, the procedure for adopting, classifying and using new financial instruments as part of the investment management of a standard common fund shall be implemented in the risk management system; this shall include in particular:

- a) a description of the new financial instrument and of the activities related to it;
- b) identification of the risk factors associated with the financial instrument;
- c) an analysis of impacts of the proposed financial instrument on the standard common fund portfolio;
- d) implementation of procedures to be used for the measurement, monitoring and audit of risks associated with the proposed financial instrument;
- e) an evaluation of the preparedness of particular units of the management company for implementing the new financial instrument.

(2) For risk management purposes, 'new financial instrument' means a generally recognised financial instrument giving rise to a credit risk or market risk which is an eligible asset for investment by a standard common fund pursuant to Article 88 of the Act, and which the management company has not as yet classified, but intends to classify and use, as part of the investment management of its standard common funds.

## **Article 11**

### **Internal control system**

(1) The adaptation of a management company's internal control mechanism to the needs of the risk management system shall include in particular:

- a) the establishment of an audit environment appropriate for the performance of activities in the management company, in particular:
  1. control activities and mechanisms performed by the board of directors,
  2. control activities performed by other Senior Management members,
  3. control activities performed by staff members of the management company within the scope of their obligations and responsibilities;
- b) regular verification of the functionality of the risk management system by the management company's internal audit function, if established, and an evaluation of the efficiency of the internal control system.

(2) The management company's internal control mechanism in the area of risk management shall respond to the finding of any deficiencies by:

- a) ensuring that the competent units and managerial staff members of the management company responsible for the management of particular types of risks are informed about the deficiencies;
- b) adopting and taking appropriate remedial measures;
- c) making necessary adjustments to the risk management system in a timely way.

## **Article 12**

### **Credit risk management**

For the purposes of credit risk management, and established pursuant to Article 9 herein, an appropriate system for executing transactions in those assets held by a standard common fund which are associated with credit risk shall include in particular the following:

- a) a definition of the types of financial derivative instruments or other assets in which the assets of a given standard common fund may be traded;
- b) rules for the execution of transactions, including in particular:

1. the nominal values of particular financial instruments or other assets up to which competent staff members are authorised to execute transactions in assets held by the respective standard common fund, or other restrictions on their activities related to the execution of such transactions, including any requirement for the transactions to be approved by the Board of Directors of the management company or by a special committee of the management company specified by an internal regulation on the company's organisation and management,
  2. the procedure to be followed when an executed transactions is changed or cancelled,
  3. the designation of persons permitted to exempt staff members from the restrictions referred to in points 1 and 2, the conditions under which these persons may grant such exemptions, and the cases when a staff member may request such exemption;
- c) a requirement that the negotiations and conclusion of each transaction be documented by a written record or audio transcript;
  - d) a requirement that records or transcripts referred to in paragraph (c) be stored outside the organisational unit that executed the transactions so as to prevent unauthorised handling and that they be stored for at least five years or until the expiry of the liabilities and claims of the standard common fund arising from the transactions, whichever is sooner;
  - e) the correct and timely recording of all executed transactions,
  - f) for OTC transactions in financial derivatives, the laying down of rules for receiving or providing collateral to the credit or debit of the standard common fund portfolio.

### **Article 13**

#### **Market risk management**

(1) For the purposes of credit risk management, and established pursuant to Article 9 herein, an appropriate system for executing transactions in those assets held by a standard common fund which are associated with credit risk shall include in particular the following:

- a) a definition of the types of financial derivative instruments or other assets in which the assets of a given standard common fund may be traded;
- b) rules for the execution of transactions, including in particular:
  1. the nominal values of particular financial instruments or other assets up to which competent staff members are authorised to execute transactions in assets held by the respective standard common fund, or other restrictions on their activities related to the execution of such transactions, including any requirement for the transactions to be approved by the Board of Directors of the management company or by a special committee of the management company specified by an internal regulation on the company's organisation and management;
  2. the procedure to be followed when an executed transactions is changed or cancelled;
  3. the designation of persons permitted to exempt staff members from the restrictions referred to in points 1 and 2, the conditions under which these persons may grant such exemptions, and the cases when staff member may request such exemption;
- c) a requirement that the negotiations and conclusion of each transaction be documented by a written record or audio transcript;
- d) a requirement that records or transcripts referred to in subparagraph (c) be stored outside the organisational unit that executed the transactions so as to prevent unauthorised handling and that they be stored for at least five years or until the expiry of the liabilities and claims of the standard common fund arising from the transactions, whichever is sooner.

(2) For the purposes of market risk management, management companies shall, in internal regulations issued in accordance with the adopted risk management policy for market risk, stipulate the following:

- a) the allocation of competences to execute and approve transactions associated with market risk;
- b) a procedure and competences for settling transactions in financial instruments;
- c) a procedure for monitoring transaction prices and comparing them with market prices;
- d) the method of cooperation, and a description of information flows, between organisational units that perform trading activities, transaction settlement activities, and market risk management activities;
- e) procedures for back testing and stress testing;
- f) requirements for the periodic provision of detailed information about market risk to the Board of Directors and other members of the Senior Management of the management company;
- g) control activities for the execution of transactions and performance of activities.

(3) The market risk measurement system in a management company shall be proportionate to the nature, scale and complexity of the management company's activities and the standard common funds it manages; the system shall in particular:

- a) record all executed transactions in a due and timely manner;
- b) enable the capturing of all significant sources of market risk in the portfolios of standard common funds;
- c) evaluate the impact of changes in market risk factors on the returns and value of standard common fund portfolios;
- d) enable market risk to be measured by a method selected in accordance with the risk management policy of the management company;
- e) enable positions to be correctly valued;
- f) enable the total value of market risk to be measured and the value and specified limits to be compared;
- g) enable assumptions and parameters of market risk measurement to be appropriately documented;
- h) enable the measurement of interest rate risk in each currency in which the assets held by a standard common fund are denominated.

(4) For the purposes of market risk measurement, a management company shall in particular:

- a) carry out back-testing on a periodic basis;
- b) re-evaluate market risk measurement methods and procedures on the basis of back testing;
- c) carry out stress testing on a periodic basis;
- d) periodically check the validity of assumptions for stress scenarios in line with changes in market conditions;
- e) carry out additional stress testing in response to any exceptional events that could have a significant effect on risk exposure of a standard common fund;
- f) on the basis of stress testing results, re-evaluate limits specified for market risk;
- g) provide information on back testing and stress testing results in accordance with Article 8.

(5) For the purposes of market risk monitoring, a management company shall in particular:

- a) set a limit on the degree of market risk exposure of the standard common funds under its management, according to their risk profiles, and limits on the different components of

this exposure; additional limits, particularly for different types of asset held by standard common funds or types of transaction, may be specified to the extent appropriate given the scale of the activities performed by the management company and the standard common funds it manages;

- b) ensure that the internal limits of the management company comply with the principles of risk spreading referred to in the Act;
- c) monitor those positions of its standard common fund portfolios which are exposed to risk, in particular risk associated with:
  - 1. type of financial instrument,
  - 2. counterparty,
  - 3. currencies,
- d) establish a system for ongoing control of compliance with the set limits;
- e) lay down rules and procedures for cases where the limits are exceeded and for granting exemptions from the limits;
- f) inform the management company's respective units about the degree of market risk and about instances of limits being exceeded.

(6) For the purposes of market risk mitigation, a management company shall in particular:

- a) specify the type of hedges and activities that are to be used for market risk mitigation;
- b) specify how and in what way the selected hedges are to be used;
- c) periodically evaluate the effectiveness of hedges and, on the basis of the evaluation results, changes in the use or types of hedges;
- d) periodically inform the management company's respective units about the evaluation results for the effectiveness of hedges.

#### **Article 14**

#### **Operational risk management**

(1) Management companies shall ensure the identification of operational risk in:

- a) all the types of transaction they execute;
- b) all the processes they apply; and
- c) all the information systems they use.

(2) For the purposes of operational risk management, the identification of risk includes:

- a) defining the operational risk events monitored by the management company;
- b) classifying operational risk events into the classes specified by the management company in accordance with the risk management policy.

(3) For the purposes of operational risk management, management companies shall have in place an operational risk assessment system appropriate to the nature, scale and complexity of the management company's activities and the standard common funds it manages; this system shall in particular:

- a) enable regular monitoring for operational risk losses;
- b) enable the capturing of all significant sources of operational risk in investment management transactions of standard common funds and in other activities of the management company;
- c) provide early warning of any increase in the risk of future losses via numerical indicators specified by the management company.

(4) The degree of operational risk shall be estimated by in particular:

- a) assessing the management company's processes and activities vis-à-vis the set of defined operational risk events monitored by the company;
- b) monitoring the operational risk associated with particular trading activities in the investment management of standard common funds;
- c) monitoring operational risk indicators, such as the number of failed transactions, staff turnover, and the frequency and number of errors;
- d) measuring operational risk, on the basis, for instance, of monitoring of previous losses from operational risk events.

(5) For the purpose of operational risk monitoring, management companies shall in particular:

- a) specify numerical indicators of operational risk for the purposes of ensuring early warning of any increase in the risk of potential losses;
- b) monitor operational risk events and assess losses resulting from these events;
- c) inform the management company's respective units about the degree of operational risk according to the selected system of operational risk assessment and about significant operational risk events.

### **THIRD SECTION CALCULATION OF GLOBAL EXPOSURE RELATING TO FINANCIAL DERIVATIVE INSTRUMENTS USING THE COMMITMENT APPROACH**

#### **Article 15**

#### **Methodologies for the conversion of financial derivative positions pursuant to Article 104(2) of the Act for different types of financial derivative instruments**

(1) For the calculation of global exposure, the commitment conversion methodology for standard financial derivatives is always the market value of the equivalent position in the underlying asset. This may be replaced by the notional value or the price of the futures contract where this is more conservative. For non-standard derivatives, where it is not possible to convert the derivative into the market value or notional value of the equivalent underlying asset, an alternative approach may be used provided that the total amount of the derivatives represent a negligible portion of the standard common fund portfolio.

(2) The following steps must be taken when calculating global exposure using the commitment approach:

- a) Calculate the commitment of each individual financial derivative, including any transferable security or money market instrument embedding a derivative (hereinafter referred to as an "embedded derivative") and leverage linked to efficient portfolio management ("EPM") techniques referred to in Article 21.
- b) Identify netting and hedging arrangements. For each netting or hedging arrangement, calculate a net commitment as follows:
  1. Gross commitment is equal to the sum of the commitments of the individual financial derivative instruments (including embedded derivatives) after derivative netting;
  2. If the netting or hedging arrangement involves security positions, the market value of security positions can be used to offset gross commitment;
  3. The absolute value of the resulting calculation is equal to net commitment.

- c) Global exposure is then equal to the sum of:
1. The absolute value of the commitment of each individual derivative not involved in netting or hedging arrangements; and
  2. The absolute value of each net commitment after the netting or hedging arrangements as described in subparagraph (b); and
  3. The sum of the absolute values of the commitment linked to EPM techniques of a standard common fund pursuant to Article 21.

(3) The calculation of gross and net commitment shall be based on an exact conversion of the financial derivative position into the market value of an equivalent position in the underlying asset of that derivative.

(4) The commitment calculation of each financial derivative position shall be converted to the base currency of the standard common fund using the spot rate. For the purposes of the commitment calculation of a financial derivative position, 'spot rate' means the exchange rate of the base currency of a standard common fund vis-à-vis the commitment currency at the end of the trading day as at which the commitment is converted, recorded in the information system. For the purposes of this Decree, 'information system' means a generally recognised information system publishing the official market prices of financial instrument and currency exchange rates, which the management company, with the agreement of the depository of the standard common fund, uses to determine the value of financial instruments.

(5) Where any currency derivative has 2 legs that are not in the base currency of the standard common fund, both legs must be taken into account in the commitment calculation.

(6) The conversion methodologies for the main types of standard financial derivatives are given in Annex No 1.

(7) The conversion methodologies for the main types of embedded derivatives are given in Annex No 2.

(8) The conversion methodologies for certain types of non-standard financial derivatives are given in Annex No 3.

(9) The conversion methodologies for barrier (knock-in or knock-out) options are given in Annex No 4.

(10) For the purposes of converting barrier option positions, 'barrier option' means an option contract which, in addition to stipulating the strike price, provides for specific consequences if the underlying asset touches a barrier price stipulated in the contract; barrier options are usually either "knock-in" options, which may only be exercised when the underlying asset rises above or falls below the barrier price, or "knock-out" options, which automatically expire when the underlying asset rises above or falls below the barrier price, or options combining both features.

**Article 16**  
**Criteria for excluding financial derivative instruments from the global exposure calculation**

(1) A financial derivative instrument that does not generate any incremental exposure for a standard common fund portfolio shall not be taken into account when calculating the commitment pursuant to Article 104(3) of the Act if it fulfils all of the following characteristics:

- a) it swaps the performance of financial assets held in the standard common fund portfolio for the performance of other reference financial assets;
- b) it totally offsets the market risk of the swapped assets held in the standard common fund portfolio so that the performance of the fund does not depend on the performance of the swapped assets;
- c) it includes neither additional optional, nor leverage clauses nor other additional risks as compared to a direct holding of the reference financial assets.

(2) A financial derivative instrument is not taken into account when calculating the commitment pursuant to Article 104(3) of the Act if it meets both of the following conditions:

- a) The combined holding by the standard common fund of a financial derivative instrument relating to a financial asset and cash which is invested in risk free assets is equivalent to holding a cash position in the given financial asset.
- b) The financial derivative instrument is not considered to generate any incremental exposure and leverage or market risk.

### **Article 17** **Netting and hedging**

(1) For the purposes of calculating global exposure using the commitment approach, 'netting arrangements' means combinations of trades on financial derivative instruments and/or security positions which refer to the same underlying assets, irrespective – in the case of financial derivative instruments – of the contracts' due date; and where the trades on financial derivative instruments or security positions are concluded with the sole aim of eliminating risks linked to positions taken through the other financial derivative instruments and/or security positions.

(2) For the purposes of calculating global exposure using the commitment approach, 'hedging arrangements' means combinations of trades on financial derivative instruments and/or security positions which do not necessarily refer to the same underlying asset and where the trades on financial derivative instruments or security positions are concluded with the sole aim of offsetting risks linked to positions taken through the other financial derivative instruments or security positions.

(3) If the standard common fund uses a conservative calculation rather than an exact calculation of the commitment for each financial derivative instrument, hedging and netting arrangements cannot be taken into account to reduce commitment on the derivatives involved if it results in an underestimation of the global exposure.

### **Article 18** **Netting**

(1) When calculating global exposure using the commitment approach, a standard common fund may net positions:

- a) between financial derivative instruments, provided they refer to the same underlying asset, even if the maturity date of the financial derivative instruments is different;

- b) between a financial derivative instrument (whose underlying asset is a transferable security, money market instrument or a collective investment undertaking) and that same corresponding underlying asset;
- c) standard common funds that invest primarily in interest rate derivatives may make use of specific duration-netting rules referred to Article 19 in order to take into account the correlation between the maturities of segments of the interest rate curve.

(2) In the context of duration-netting arrangements, an interest rate derivative instrument is a derivative where the underlying asset is the right to pay or receive a notional amount of money at a given interest rate; the variation of the marked to market of the interest rate derivative is mainly related to the move of the interest rate curve. Examples of interest rate derivatives might be: interest rate swap, forward rate agreement, interest rate future, future on notional bond. The risk profile of the interest rate derivatives shall not include another main source of risk other than interest rate risk; options on corporate bonds shall not be considered as interest rate derivative instruments.

### **Article 19** **Duration-netting rules**

(1) When calculating global exposure using the commitment approach, the duration-netting rules cannot be applied if it would lead to an incorrect assessment of the risk profile of the standard common fund. Standard common funds availing of these netting rules shall not include other sources of risk (e.g. volatility) in their interest rate strategy. Therefore, for example, interest rate arbitrage strategies may not apply to these netting rules.

(2) The use of these duration-netting rules cannot generate any unjustified level of leverage through investment in short-term positions. Thus short-dated interest rate derivatives cannot be the main source of performance for a standard common fund with medium duration which makes use of this netting methodology.

(3) The methodology for converting interest rate derivatives into their equivalent underlying asset position is given in Annex No 5.

(4) When calculating global exposure using the commitment approach, a standard common fund making use of the duration-netting rules can still make use of the hedging framework referred to in Article 20; however, only the interest rate derivatives which are not included in hedging arrangements can still make use of duration-netting rules.

### **Article 20** **Hedging arrangements**

(1) Hedging arrangements may only be taken into account when calculating global exposure if they offset the risks linked to assets in the standard common fund and if they comply with all the criteria below:

- a) their use results in a verifiable reduction of risk at the level of the standard common fund;
- b) the risks linked to financial derivatives used in the hedging arrangements, i.e. general and specific risks if any, are offset;
- c) they relate to the same asset class;
- d) they are efficient in stressed market conditions.



(2) The following shall not be considered as hedging arrangements:

- a) the investment strategies of a standard common fund which aim to generate a return;
- b) market-neutral or long/short investment strategies.

(3) Notwithstanding the criteria referred to in paragraph (1), financial derivative instruments used for currency hedging purposes (i.e. that do not add any incremental exposure, leverage and/or other market risks) may be netted when calculating the standard common fund exposure.

## **Article 21**

### **How to take into account efficient portfolio management techniques in a standard common fund**

(1) If when using efficient portfolio management ("EPM") techniques, a standard common fund is authorised (under its rules) to undertake repurchase transactions or securities lending transactions to the credit or debit of its portfolio in order to generate additional leverage through the reinvestment of collateral, these transactions must be taken into consideration for the determination of the global exposure.

(2) If the investment management of the standard common fund involves the reinvestment of collateral in financial assets, referred to in Article (2)(b), which provide a return in excess of the risk-free return, the global exposure calculation shall include:

- a) The amount received if cash collateral is held; and
- b) The market value of the instrument concerned if non-cash collateral is held.

(3) For the purposes of calculating global exposure using the commitment approach, any global exposure generated through the use of EPM techniques in the standard common fund will be added with the global exposure created through the use of financial derivatives.

(4) Any further use of collateral as part of another repurchase transaction or securities lending transaction must be included in the global exposure calculation similarly as under paragraph (3).

(5) EPM techniques in a standard common fund which meet the criteria referred to in paragraph (1) include the following:

- a) Sale and Repurchase Agreements (hereinafter referred as "repo transactions"), meaning transactions where a standard common fund sells securities to a reverse-repo counterparty and agrees to buy them back at an agreed price in the future; if collateral received as part of the transaction is reinvested pursuant to paragraph (2), it shall be included in the global exposure calculation.
- b) Purchase and Resale Agreements (hereinafter referred to as "reverse repo transactions"), meaning transactions where a standard common fund purchases securities from a repo counterparty and agrees to sell them back at an agreed price in the future; if the purchased securities are further used as part of a repo transaction, the full market value of the securities must be included in the global exposure calculation;
- c) Securities Lending Agreements, meaning agreements under which a standard common fund will lend stock to a stock-borrowing counterparty for an agreed fee; if collateral received as part of the a securities lending agreement is reinvested pursuant to paragraph (2), it shall be included in the global exposure calculation.

**FOURTH SECTION**  
**CALCULATION OF GLOBAL EXPOSURE USING THE VALUE AT RISK**  
**APPROACH**

**Article 22**

**Calculating global exposure using the relative value at risk ("VaR") approach**

(1) Under the relative VaR approach, the global exposure of the standard common fund is calculated as follows:

- a) Calculate the VaR of the standard common fund's current portfolio (which includes derivatives);
- b) Calculate the VaR of a reference portfolio;
- c) Check that the VaR of the standard common fund portfolio is not greater than twice the VaR of the reference portfolio in order to ensure a limitation of the global leverage ratio of the standard common fund to 2; this limit can be presented as follows:

$$\frac{(\text{VaR of standard common fund} - \text{VaR of reference portfolio})}{\text{VaR of reference portfolio}} \times 100 \leq 100\% ,$$

where VaR is value at risk.

(2) For the purposes of calculating global exposure using the relative VaR approach, 'relative VaR' means the VaR of the standard common fund divided by the VaR of a benchmark or reference portfolio.

(3) The reference portfolio and the related processes must comply with the following criteria:

- a) The reference portfolio is unleveraged and in does not contain any leverage nor any financial derivative instruments or embedded derivatives, except that:
  1. a standard common fund engaging in a long/short strategy may select a reference portfolio which uses financial derivative instruments to gain the short exposure,
  2. a standard common fund which intends to have a currency hedged portfolio may selected a currency hedged index as a reference portfolio;
- b) The risk profile of the reference portfolio is consistent with the objectives and investment policies of the standard common fund and with the risk spreading pursuant to the Act, the fund's rules, or internal limits;
- c) The process relating to the determination and ongoing maintenance of the reference portfolio is integrated in the risk management process and is supported by adequate procedures; and
- d) Guidelines governing the composition of the reference portfolio are in place, and the actual composition of the reference portfolio, and any changes thereto, are clearly documented.

(4) If the risk/return profile of a standard common fund changes frequently or if the definition of a reference portfolio is not possible, then the relative VaR method may not be used.

**Article 23**

## **Calculating global exposure using the absolute VaR approach, and the maximum limit of value at risk**

(1) When calculating global exposure using the absolute VaR approach, the maximum VaR that a standard common fund portfolio can have relative to its net asset value (NAV) is limited by this approach.

(2) For the purposes of calculating global exposure using the absolute VaR approach, 'absolute VaR' means the VaR of the standard common fund capped as a percentage of the fund's NAV.

(3) The absolute VaR of a standard common fund cannot be greater than 20% of its NAV.

### **Article 24**

#### **Minimum requirements for the VaR approach**

When calculating the global exposure by means of the relative or absolute VaR approach, the quantitative and qualitative minimum requirements referred to in Articles 25 to 32 must be complied with.

#### **Quantitative requirements for the VaR approach**

### **Article 25**

(1) The calculation of the absolute and relative VaR must be carried out in accordance with the following parameters:

- a) one-tailed confidence interval of 99%;
- b) holding period equivalent to 20 business days;
- c) effective observation period (history) of risk factors of at least 1 year unless a shorter observation period is justified by a significant increase in price volatility;
- d) quarterly data set, or more frequent when market prices are subject to material changes;
- e) at least daily calculation.

(2) A confidence interval and/or holding period differing from the default parameters in paragraph (1)(a) and (b) may be used provided the confidence interval is not below 95% and the holding period does not exceed 20 business days.

(3) The absolute VaR limit mentioned in Article 23(3) applies where global exposure is calculated using the absolute VaR approach with the confidence interval referred to in paragraph (1)(a) and the holding period referred to in paragraph 1(b). Confidence intervals or holding periods other than those referred in paragraphs 1(a) and (b) may be used to calculate the absolute VaR, provided that the absolute VaR limit referred to in Article 23(3) is rescaled to the particular confidence interval or holding period. The rescaling of the absolute VaR limit can only be done under the assumption of a normal distribution with an identical and independent distribution of the risk factor returns by referring to the quantiles of the normal distribution and the square root of time rule.

(4) The principles for modifying the maximum limit of absolute VaR are given in Annex No 6.

### **Article 26**

The VaR model used for global exposure calculation purposes shall take into account, as a minimum, general market risk and, if applicable, specific market risk. The event risk and/or default risk to a standard common fund is exposed following its investments shall be taken into account, as a minimum, in the stress testing program.

#### **Article 27**

The VaR model shall provide for completeness and assess the risks with a high level of accuracy. In particular:

- a) All the positions of the standard common fund portfolio shall be included in the VaR calculation.
- b) The model shall adequately capture all the material market risks associated with portfolio positions of the standard common fund and, in particular, the specific risks associated with financial derivative instruments; for that purpose, all the risk factors which have more than a negligible influence on the fluctuation of the portfolio' value shall be covered by the VaR model.
- c) The quantitative models used within the VaR framework (pricing tools, estimation of volatilities and correlations, etc.) shall provide for a high level of accuracy;
- d) All data used within the VaR framework shall provide for the consistency and reliability of the global exposure calculation using the VaR approach.

#### **Article 28**

##### **Details of back testing**

(1) The accuracy and performance of the VaR model shall be monitored by conducting a back testing program in accordance with Article 102(3)(b) of the Act.

(2) For the purposes of conducting back testing, 'VaR back testing' means a process of assessing the accuracy and quality of a VaR model by comparing the model-generated VaR measures that it produces over time against actual observed gains and losses arising from the respective risk exposure of the standard common fund portfolio.

(3) The back testing program shall provide for each business day a comparison of the one-day VaR measure generated by the model of the standard common fund model for the fund's end-of-day positions to the one-day change of the fund's portfolio value by the end of the subsequent business day.

(4) The back testing program for a standard common fund shall be carried out at least on a monthly basis, subject to always performing retroactively the comparison for each business day referred to in paragraph (3).

(5) The back testing program shall be used to determine and monitor overshootings, i.e. one-day changes in the value of the standard common fund portfolio that exceed the related one-day VaR measures calculated by the VaR model.

(6) If back testing results reveal at least four overshootings for the most recent 250 days, the VaR shall be reviewed and appropriately adjusted.

(7) The Senior Management of the management company shall be informed at least on a quarterly basis if the number of overshootings for each of the company's standard common funds for the most recent 250 business days exceeds 4 in the case of a 99% confidence interval; this information shall contain an analysis and explanation of the sources of overshootings and a statement of what measures if any were taken to improve the accuracy of the model.

## **Article 29**

### **Details of stress testing**

(1) When calculating global exposure using the VaR approach, a rigorous, comprehensive and risk-adequate stress testing program shall be conducted pursuant to Article 102(3)(c) of the Act in accordance with the qualitative and quantitative requirements set out in Articles 30 and 31.

(2) For the purposes of conducting stress testing, 'VaR stress testing' means a process to identify market events, usually of an extreme nature, which could have a catastrophic effect on the portfolio of a standard common fund and to make an appropriate quantification of this effect; stress testing usually includes the creation of stress scenarios and assessing how standard common funds perform under these scenarios.

(3) The stress testing program shall be designed to measure any potential major depreciation of the standard common fund's value as a result of unexpected changes in the relevant market parameters and correlation factors. Conversely, where appropriate, the stress testing program shall also measure changes in the relevant market parameters and correlation factors, which could result in major depreciation of the fund's value.

(4) The stress tests shall be adequately integrated into the risk management system, and the management company shall take into consideration the stress test results when making investment decisions for the standard common fund portfolio.

(5) The complexity of the stress tests shall be in line with the risk profile of the respective standard common fund.

(6) Stress scenarios used in stress testing shall be selected and tested to reflect extreme changes in markets and other environmental factors which would affect the value of the standard common fund; the scenarios shall be plausible, i.e. unlikely to occur but not impossible.

(7) Stress testing shall include the active identification of scenarios which would have a severe impact on the value of the standard common fund and the probability of such scenarios being realised, if appropriate in relation to the fund's investment strategy and risk profile of the standard common fund and based on a concrete risk situation. For such scenarios, appropriate measures for early warnings and prevention shall be implemented in the risk management system.

(8) If it is not possible to assess precisely the potential depreciation of the standard common fund's value or the changes in the parameters and correlations for specific types of risk, a skilled estimate may be made instead.

(9) The stress tests shall be integrated into the risk management system. The stress test results shall be monitored and analysed by the risk management function and they shall be submitted for review to the Senior Management. If the stress tests results reveal particular vulnerability to a given set of circumstances, then they shall give rise, if applicable and appropriate, to corrective actions within the risk management system.

### **Article 30** **Quantitative requirements for stress testing**

(1) The stress tests shall cover all risks which affect the value or the fluctuations in value of the standard common fund to any significant degree, except for those which even in stress situations have no more than negligible effect on the standard common fund value. Stress tests shall in particular take into account those risks which are not fully captured by the VaR model used. The stress tests shall focus on those risks which, though not significant in normal circumstances, are likely to be significant in stress situations, such as the risk of unusual correlation changes, the illiquidity of markets in stressed market situations or the behaviour of complex structured products under stressed liquidity conditions.

(2) The stress tests shall be appropriate for analysing potential situations at which the use of significant leverage would expose the standard common fund to significant downside risks and could potentially lead to a full loss of the fund's value. If the standard common fund could, due to the effect of leverage and depending on its composition and profile, lose more than the value of its own assets in rare situations, the stress testing shall include active identification of scenarios that could result in the value of the standard common fund becoming negative. For such scenarios there shall be implemented appropriate measures in the risk management system for early warnings and prevention.

### **Article 31** **Qualitative requirements for stress testing**

(1) The stress tests shall be carried out on a regular basis, at least once a month, or less frequently if the investment strategy of the standard common fund is index replicating as referred to in Article 90 of the Act. Additionally, stress tests shall be carried out whenever a change in the value or composition of the standard common fund portfolio or a change in market conditions makes it likely that the stress test results will differ significantly.

(2) The design of the stress tests shall be adapted in line with the composition of the standard common fund portfolio and the market conditions that are relevant for the fund.

(3) Procedures relating to the design of, and ongoing adaptation of the stress tests shall be implemented in the risk management system. A program for carrying out stress tests shall be developed on the basis of such procedures for each standard common fund managed by the management company. The stress test program together with the completed stress tests and their results shall be properly documented in the risk management system; the program shall set out the individual stress tests to be carried out for the fund with an explanation of why the program is appropriate for the fund. Reasons for any intention to deviate from the program shall be given in the documentation.

### **Article 32** **Qualitative requirements for the VaR approach**

(1) Regarding the calculation of global exposure using the VaR approach, the risk management function shall be responsible for:

- a) sourcing, testing, maintaining and using the VaR model on a day-to-day basis;
- b) supervising the process relating to the determination of the reference portfolio if there is a reversion to using the relative VaR approach for the global exposure calculation;
- c) ensuring on a continuous basis that the VaR model is adapted to the composition of the standard common fund portfolio;
- d) performing continuous validation of the model;
- e) validating and implementing for each standard common fund a documented system of internal VaR limits consistent with its risk profile that is to be approved by the Senior Management of the management company;
- f) monitoring and controlling the VaR limits;
- g) monitoring on a regular basis the level of leverage generated by the standard common fund portfolio;
- h) producing on a regular basis reports relating to the current level of the VaR measure (including back testing and stress testing) for the Senior Management.

(2) The VaR model and the related outputs shall represent an integral part of the daily risk management work; they shall be integrated in the regular investment process led by the investment management function as part of the risk management system to keep the risk profile of the standard common fund under control and consistent with its investment strategy.

(3) Following initial development, the model shall undergo validation by a party independent of the building process for ensuring that the model is conceptually sound and captures adequately all material risks. This validation of the VaR model shall also be carried out following any significant change to the model. The validation of the VaR model following its initial development shall be conducted by an auditor or an external service provider independent of the model building process.

(4) The risk management function shall perform ongoing validation of the VaR model in accordance with paragraph (1)(d) in order to ensure the accuracy of the model's calibration. The review shall include, but not be limited to, back testing as laid down in Article 28. The review by the risk management function shall be documented in the risk management system, and, where necessary, the model VaR shall be adjusted.

(5) The VaR approach shall include adequate documentation of the VaR model and the related processes and techniques referred to in Article 102(3)(a) of the Act, thereby covering, among others:

- a) the risks covered by the model;
- b) the model's methodology;
- c) the mathematical assumptions and foundations;
- d) the data used;
- e) the accuracy and completeness of the risk assessment;
- f) the methods used to validate the model;
- g) the back testing process;
- h) the stress testing process;
- i) the validity range of the model; and
- j) the operational implementation.

### **Article 33**

#### **Other details of global exposure calculation using the VaR approach**

(1) Where global exposure is calculated using the VaR approach, the leverage used in the investment strategy shall be regularly monitored in order to cover all the relevant risks, in particular fat-tail risk.

(2) The VaR / stress testing framework shall be supplemented with other risk measurement methods, where appropriate by taking into account the risk profile and the investment strategy being pursued.

### **FIFTH SECTION**

#### **ADDITIONAL ELEMENTS OF THE PROSPECTUS AND ANNUAL REPORT OF A STANDARD COMMON FUND IN REGARD TO THE RISK MEASUREMENT AND RISK MANAGEMENT IN THE FUND**

### **Article 34**

(1) The prospectus of a standard common fund shall include the following additional elements:

- a) disclosure of the method used to calculate global exposure;
- b) disclosure of the expected level of leverage and the possibility of higher leverage levels, where a VaR approach is used;
- c) disclosure of information on the reference portfolio, where the relative VaR approach is used.

(2) The annual asset management report of a standard common fund shall include the following additional elements:

- a) disclosure of the method used to calculate the global exposure;
- b) disclosure of information on the reference portfolio, where the relative VaR method is used;
- c) disclosure of the VaR measure, including at least the lowest, the highest and the average utilisation of the VaR limit calculated during the period covered by the report; the VAR model and inputs used for the calculation shall also be included in the report;
- d) disclosure of the level of leverage employed during the relevant period.

(3) For the purposes of paragraphs (1) and (2), leverage shall be calculated as the sum of the notionals of the derivatives used.

### **SIXTH SECTION**

#### **COUNTERPARTY RISK AND RULES FOR THE CALCULATION OF LIMITS PURSUANT TO ARTICLE 89 OF THE ACT**

### **Article 35**

#### **Requirements for collateral that may be used to reduce OTC counterparty risk exposure**



(1) Collateral may be used by the management company to reduce counterparty risk exposure in accordance with Article 106(4) of the Act provided it complies with the following set of principles:

- a) liquidity – any collateral posted must be sufficiently liquid, meaning:
  1. it can be sold quickly at a robust price that is close to the pre-sale valuation,
  2. it is normally traded in a liquid marketplace with transparent pricing;
- b) valuation – collateral must be capable of being valued on at least a daily basis and the possibility of "stale prices" is not allowed;
- c) issuer credit quality;
- d) correlation – correlation between the OTC counterparty and the collateral received must be avoided;
- e) collateral diversification – the collateral is not concentrated in one issue, sector or country;
- f) operational and legal risks related to the collateral received – the management of these risks is ensured by appropriate systems, operational capabilities and legal expertise;
- g) collateral must be held by a custodian which is subject to prudential supervision, and which is either unrelated to the provider or is legally secured from the consequences of a failure of a related party;
- h) collateral must be fully enforced at any time without reference to or approval from the counterparty;
- i) non-cash collateral cannot be sold, re-invested or pledged;
- j) cash collateral can only be invested in risk-free assets.

(2) The counterparty risk may be disregarded on condition that the value of the collateral, valued at market price and taking into account appropriate discounts, exceeds the value of the amount exposed to risk at any given time.

(3) For the valuation of collateral presenting a significant risk of value fluctuation, prudent discount rates shall be applied; these rates shall be determined by simulating the valuations of both securities and collateral over multiple holding periods.

### **Article 36**

#### **Rules for the calculation of limits referred to in Article 89 of the Act**

(1) The following exposure must also be calculated within the calculation of limits pursuant to Article 89 of the Act:

- a) initial margin posted;
- b) variation margin receivable relating to financial derivatives which is not protected by clients' rights related to financial instruments and money<sup>1</sup> or other similar arrangements to protect the standard common fund against the insolvency of the brokers or foreign brokers.

(2) The calculation of the limit pursuant to Article 89(5) of the Act shall also include any net exposure to a counterparty generated through a stock-lending or repurchase agreement. For this purpose, 'net exposure' means the amount receivable by the standard common fund less any collateral provided to a custodian. Exposures created through the reinvestment of collateral must also be taken into account in the calculation of the limit pursuant to Article 89(5) of the Act.

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<sup>1</sup> Article 71h of Act No 566/2001 Coll. on securities and investment services and on amendments to certain laws (the Securities Act).

(3) When calculating the exposure limits pursuant to Article 89 of the Act, it must be established whether the exposure of the standard common fund is to OTC counterparty, a broker or a clearing house.

(4) For the purposes of calculating limits, position exposure to the underlying assets of financial derivative instruments (including embedded financial derivative instruments) in transferable securities such as money market instruments or collective investment undertakings, combined where relevant with positions resulting from direct investments in the transferable securities, money market instruments or collective investment undertakings securities, may not exceed the limits set out in Articles 89 and 92 of the Act.

(5) When calculating issuer-concentration risk, the financial derivative instrument (including embedded financial derivative instruments) shall be taken into account in the calculation of issuer concentration limits pursuant to Article 89 of the Act. This calculation shall be carried out using of the commitment approach when appropriate or the maximum potential loss as a result of default by the issuer if more conservative. This method of calculating limits pursuant to Article 89 of the Act shall be applied regardless of whether the management company uses the commitment approach or the VaR approach for calculating global exposure.

(6) The provision in paragraph (5) shall not apply in the case of index-based financial derivative instruments provided the underlying index is one which meets the criteria specified in Article 90 of the Act.

## **SEVENTH SECTION COVER RULES FOR TRANSACTIONS IN FINANCIAL DERIVATIVE INSTRUMENTS**

### **Article 37**

(1) In order to ensure that management companies are, at any given time, capable of meeting all their payment and delivery obligations incurred by transactions involving financial derivative instruments in assets held by their standard common funds, the cover rules shall be applicable in all circumstances where the standard common fund has commitments under the terms of the financial derivative contract.

(2) In the case of derivative contracts which provide, automatically or at the counterparty's choice, for the physical delivery of the underlying financial instrument on the due date or the exercise date and insofar as physical delivery is a normal practice in the case of the financial derivative instruments in question, the standard common fund:

- a) shall hold in its portfolio the underlying financial instrument as cover, or
- b) in cases where the standard common fund deems that the underlying financial instrument is sufficiently liquid, it may hold as coverage other liquid assets (including cash) as cover on condition that these assets, held in sufficient quantities, may be used at any time to acquire the underlying financial instruments which is to be delivered.

(3) In respect of derivative contracts which provide for cash settlement, automatically or at the discretion of the management company, a standard common fund shall hold enough liquid assets to allow it to make the contractually required payments. The method by which

the cover level for contracts with cash settlement is set shall ensure, in accordance with Article 100(7) of the Act, that the management company is able at all times to meet all its payment obligations arising from transactions in financial derivative instruments held by the standard common fund.

(4) The risk management system shall include monitoring of financial derivative instrument transactions in order to ensure their adequate coverage. The risk management system shall include a regular check on whether the coverage available to a standard common fund, either in the form of the underlying financial instrument or in the form of liquid assets, exists in sufficient quantity to meet all future obligations of the management company arising from the investment management of the fund.

## **EIGHTH SECTION COMMON, TRANSITIONAL AND FINAL PROVISIONS**

### **Article 38**

(1) Where a management company establishes and manages a European fund or funds pursuant to Article 63 of the Act, the provisions laid down in Articles (2) to (14) of this Decree shall apply equally to the risk management system for these European funds.

(2) Articles 15 to 37 of this Decree shall apply equally to foreign management companies that establish standard common funds pursuant to Article 66 of the Act.

(3) The provisions of this Decree shall apply, mutatis mutandis, to the risk management system, risk measurement, and the calculation of global exposure and counterparty risk in special common funds.

(4) Management companies and foreign management companies referred to in paragraph (2) shall have until 30 June 2012 to bring their activities into line with the provisions of this Decree, which have not been regulated or differ from the provisions of legal regulations in force up to 30 June 2011.

### **Article 39**

This Decree shall enter into force on 15 October 2011.

**Viliam Ostrožlík** m.p.  
Deputy Governor

on behalf of  
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**Conversion methodologies applied to standard financial derivatives in the calculation of global exposure using the commitment approach**

Standard financial derivative instruments shall be converted into their equivalent underlying asset positions by the following methods:

1. Futures:

1.1. Bond Future

Number of contracts \* notional contract size \* market price of the cheapest-to-deliver reference bond

1.2. Interest Rate Future:

Number of contracts \* notional contract size

1.3. Currency Future:

Number of contracts \* notional contract size

1.4. Equity Future:

Number of contracts \* notional contract size \* market price of underlying equity share

1.5. Index Futures:

Number of contracts \* notional contract size \* index level

2. Options

Plain Vanilla (bought/sold puts and calls)

2.1. Plain Vanilla Bond Option:

Notional contract value \* market value of underlying reference bond \* delta

2.2. Plain Vanilla Equity Option:

Notional contract value \* market value of underlying equity share \* delta

2.3. Plain Vanilla Interest Rate Option:

Notional contract value \* delta

2.4. Plain Vanilla Currency Option

Notional contract value of currency leg(s) \* delta

2.5. Plain Vanilla Index Options:

Number of contracts \* notional contract size \* index level \* delta

2.6. Plain Vanilla Options on Futures:

Number of contracts \* notional contract size \* market value of underlying asset \* delta

2.7. Plain Vanilla Swaptions:

Reference swap commitment conversion amount \* delta

- 2.8. Warrants and Rights:  
 Number of shares/bonds \* market value of underlying referenced instrument \* delta
3. Swaps
- 3.1. Plain Vanilla Fixed/Floating Rate Interest Rate and Inflation Swaps:  
 Market value of underlying (the notional value of the fixed leg may also be applied)
- 3.2. Currency Swap:  
 Notional value of currency leg(s)
- 3.3. Cross currency Interest Rate Swaps:  
 Notional value of currency leg(s)
- 3.4. Basic Total Return Swap:  
 Underlying market value of reference asset(s)
- 3.5. Non-Basic Total Return Swap:  
 Cumulative underlying market value of both legs of the TRS
- 3.6. Single name Credit Default Swap:  
 Protection Seller – The higher of the market value of the underlying reference asset or the notional value of the Credit Default Swap.  
 Protection Buyer – Market value of the underlying reference asset
- 3.7. Contract for Differences:  
 Number of shares/bonds\*market value of underlying referenced instrument
4. Forwards
- 4.1. FX Forward:  
 Notional value of currency leg(s)
- 4.2. Leveraged exposure to indices or indices with embedded leverage:  
 A derivative providing leveraged exposure to an underlying index, or indices that embed leveraged exposure to their portfolio, must apply the standard applicable commitment approach to the assets in question.

For the purposes of applying conversion methodologies to standard derivative instruments:

- a) 'futures' means a fixed-term contract concluded on a regulated market or other organised public market to buy or sell a fixed quantity of a financial instrument for delivery at a fixed date and place in the future at a fixed price, selected from the standardised products on the given market; the counterparty undertakes to pay the organiser of the market an initial margin and, if necessary, to make variation margin payments to the organiser,
- b) 'currency future' means a standardised transferable contract in which a currency for forward delivery on a fixed date is bought or sold at a particular exchange rate; a currency futures contract can be used to hedge against currency risk;
- c) 'plain vanilla' means a basic or standard version of financial instruments, usually options, bonds, futures and swaps; plain vanilla instruments are the opposite of exotic instruments,

which alter the components of traditional financial instruments, resulting in more complex securities;

- d) 'plain vanilla option' means a category of options which includes only the most standard components; a plain vanilla option has an expiration date and a straightforward strike price;
- e) 'option' means the right of one contractual party to receive or deliver the subject of the option and the obligation of the other contractual party, at the request of the first counterparty, to deliver or receive the object of the option for the price stipulated in the option contract; the period between entering into the transaction and its settlement is longer than that of a spot transaction;
- f) 'swaption' means an option to enter into an underlying swap;
- g) 'option delta' means a the change in price of an option for every one-point move in the price of the underlying asset;
- h) 'swap' means a fixed-term transaction in which the parties to the contract exchange specified amounts of one financial instrument for another financial instrument on a particular date for a price specified in the swap agreement;
- i) 'fixed/floating rate interest rate swap' means a fixed-term transaction in which the parties to the contract exchange fixed-rate interest payments for floating-rate interest payments from a specified principal amount, in the same currency, on a particular date;
- j) 'currency swap' means a fixed-term transaction in which the parties to the contract exchange specified amounts of one currency for another currency on a particular delivery date, at the spot rate on the transaction date or at a forward rate, and then they are re-exchanged at the end of a specified period at a forward rate;
- k) 'cross-currency interest rate swap' means a fixed-term transaction in which the parties to the contract exchange interest payments and specified principal amounts denominated in two different currencies on a particular date at the spot rate on the transaction date or at a forward rate, and then they are re-exchanged at the end of a specified period at a forward rate;
- l) 'basic total rate of return swap' means a swap in which, on an agreed date, one party pays the total return of a reference asset in exchange for a total rate of return – the floating rate payment plus a spread;
- m) 'non-basic total rate of return swap' means a swap in which, on an agreed date, one party pays the total return of a reference asset in exchange for a total rate of return – fixed rate payment or the total return of another reference asset;
- n) 'credit default swap' means a financial derivative instrument in which one contracting party makes to the other party periodic payments in exchange for financial protection against a specified credit event (commitment to a payoff if default of the issuer of the respective financial instrument);
- o) 'contract for differences' means a bilateral contract between two parties, a buyer and a seller, stipulating that the seller will pay to the buyer the difference between the current value of an asset and its value when the contract was entered into;
- p) 'forward contract' means an agreement to buy or sell a specified amount of a financial instrument at a particular future date and at an agreed price, or to pay a predetermined sum on a particular future date as the difference between the agreed price of an underlying asset and the market price of that asset;
- q) 'FX forward' means an agreement to buy or sell a stated amount of a given currency on an agreed date in the future at forward exchange rate agreed on the transaction date, or to make a payment in a specified currency which is the difference between the agreed forward exchange rate and the spot exchange rate of the currency pair for the specified amount of the respective currency at the agreed date.

**Conversion methodologies applied to embedded derivatives in the calculation of global exposure using the commitment approach**

Financial instruments which embed derivatives shall be converted into their equivalent underlying asset positions by the following methods:

1. Convertible Bonds:  
Number of referenced shares \* market value of underlying reference shares \* delta
2. Credit Linked Notes:  
Market value of underlying reference asset(s)
3. Partly Paid Securities:  
Number of shares/bonds \* market value of underlying referenced instruments
4. Warrants and Rights:  
Number of shares/bonds \* market value of underlying referenced instruments \* delta

For the purposes of converting embedded derivatives:

- a) 'convertible bond' means a bond that can be converted by its holder into a fixed number of shares at a specified price before its maturity
- b) 'credit-linked note' means a security with an embedded credit default swap allowing the issuer to transfer a specific credit risk to credit investors;
- c) 'partly paid security' means a security held by a standard common fund on which only part of the capital amount has been paid and where the outstanding amounts are payable according to conditions set by the seller or issuer of the security;
- d) 'delta' means the change in price of an embedded derivative for every one-point move in the price of the underlying asset.



**Conversion methodologies applied to non-standard financial derivatives in the calculation of global exposure using the commitment approach**

Non-standard financial derivatives shall be converted into their equivalent underlying asset positions by the following methods:

1. Variance Swaps

The variance notional shall be calculated as follows:

$$\text{variance notional} = \frac{\text{vega notional}}{2 \times \text{strike}}$$

where

the vega notional provides a theoretical measure of the profit or loss resulting from a 1% change in volatility; as realised volatility cannot be less than zero, a long swap position has a known maximum loss; the maximum loss on a short swap can be limited by the inclusion of a cap on volatility, while without a cap, a short swap's potential losses are unlimited,

The conversion methodology to be used for a given contract at time t is

- a) Variance Notional \* (current) Variance<sub>t</sub> (without volatility cap),
- b) Variance Notional \* min [(current) Variance<sub>t</sub>; volatility cap<sup>2</sup>] (with volatility cap)

$$(\text{current}) \text{ variance}_t = \frac{t}{T} * \text{realized volatility } (0,t)^2 + \frac{T-t}{T} * \text{implied volatility } (t,T)^2$$

For the purpose of converting a non-standard financial derivative into its equivalent underlying asset position, 'variance swap' means a swap in which a monetary amount determined by the variance of changes in market values of the underlying asset is exchanged for a fixed amount agreed in the swap contract.

2. Volatility Swaps

By analogy with the variance swaps, the following conversion formulae shall be applied to volatility swaps:

- a) Vega Notional \* (current) Volatility<sub>t</sub> (without volatility cap),
  - b) Vega Notional \* min [(current) Volatility<sub>t</sub>; volatility cap] (with volatility cap),
- whereby the (current) volatility<sub>t</sub> is a function of the realized and implied volatility.

**Conversion methodology applied to barrier (knock-in or knock-out) options in the calculation of global exposure using the commitment approach**

Barrier options (knock-in or knock-out) shall be converted into their underlying asset positions by the following methods:

Number of contracts \* notional contract size \* market value of underlying equity share \* maximum delta,

whereby the maximum delta is equal to the highest (if positive) or lowest (if negative) value that the delta of the option may attain, taking into account all possible market scenarios.

**Conversion methodology applied to interest rate derivatives for the purposes of duration-netting in the calculation of global exposure using the commitment approach**

Interest rate derivative instruments shall be converted into their equivalent underlying asset position by the following method:

1. Allocate each interest rate financial derivative instrument to the appropriate range ("bucket") of the following maturity-based ladder:

Bucket	Maturities range
1	0 - 2 years
2	2 - 7 years
3	7 - 15 years
4	> 15 years

2. Calculate the equivalent underlying asset position of each interest rate derivative instrument as its duration divided by the target duration of the standard common fund and multiplied by the market value of the underlying asset:

$$\text{Equivalent underlying asset position} = \frac{\text{duration}_{\text{FDI}}}{\text{duration}_{\text{target}}} \times \text{MtM}_{\text{Underlying}},$$

where

$\text{duration}_{\text{FDI}}$  is the duration (sensitivity to interest rate) of the interest rate derivative instrument,

$\text{duration}_{\text{target}}$  is in line with the investment strategy, the directional positions and with the expected level of risk at any time and will be regularised otherwise; it is also in line with the portfolio duration under normal market conditions,

$\text{MtM}_{\text{underlying}}$  is the market value of the underlying asset.

3. Net the long and short equivalent underlying asset positions within each bucket. The amount of the former which is netted with the latter is the netted position for that bucket.
4. Net the amount of the remaining unnetted long (or short) position in the bucket (i) with the amount of the remaining (long) position remaining in the bucket (i+2).
5. Calculate the netted amount between the unnetted long and short positions of the two most remote buckets.
6. Calculate the total global exposure of the common fund as the sum of:
  - a) 0% of the netted position for each bucket;
  - b) 40% of the netted positions between two adjoining buckets (i) and (i+1);
  - c) 75% of the netted positions between two remote buckets separated by another one, meaning buckets (i) and (i+2);
  - d) 100% of the netted positions between the two most remote buckets; and
  - e) 100% of the remaining unnetted positions.

**Principles for rescaling of the absolute VaR limit**

The rescaling of the absolute VaR limit to a different confidence interval and different holding period shall be carried out in line with the following principles:

1. When rescaling the absolute VaR limit to a different confidence interval, the following table outlining the quantiles of the normal distribution shall be taken into account:

<b>Confidence level</b>	<b>Coefficient normal distribution</b>
99,0%	2,326
97,5%	1,96
95,0%	1,645

2. In front of a confidence interval of y% (and a holding period of 20 days), the absolute VaR limit referred to in Article 23(2) with confidence interval of x% (e.g. 99%) shall be rescaled according to the following formula:

$$\text{VaR}(y\%) \approx \frac{\text{coeff}(y\%)}{\text{coeff}(x\%)} \times \text{VaR}(x\%)$$

where VaR is value at risk.

3. If, when calculating global exposure using the absolute VaR approach, the management company uses a confidence interval of 95% in its internal processes, the application of the formula in point 2 leads to the following rescaled maximum VaR limit:

$$\text{VaR}(95\%) \approx \frac{1,645}{2,326} \times \text{VaR}(99\%) = \frac{1,645}{2,326} \times 20\% \approx 14,1\%$$

4. As in points 2 and 3, when rescaling the absolute VaR limit it is possible to move from one holding period to another by using the square root of time rule. Where absolute VaR approach is used with a holding period of x days (and the confidence interval of 99%), the absolute VaR limit referred to in Article 23(2) with a holding period of t days (e.g. 20) shall be rescaled according to the following formula:

$$\text{VaR}(x \text{ days}) \approx \frac{\sqrt{x}}{\sqrt{t}} \times \text{VaR}(t \text{ days})$$

5. If a holding period of 5 days is applied in the calculation of global exposure using the absolute VaR approach, the application of the formula referred to in point 4 shall lead to the following rescaled maximum VaR limit:

$$\text{VaR}(5 \text{ days}) \approx \frac{\sqrt{5}}{\sqrt{20}} \times 20\% = 10\%$$

6. If a confidence level of 95% and a holding period of 5 days is applied in the calculation of global exposure using the absolute VaR approach, the rescaled maximum VaR limit shall be:

$$\text{VaR}(95\%, 5 \text{ days}) \approx \frac{1,645}{2,326} \times \frac{\text{VaR}(20 \text{ days}, 99\%)}{\sqrt{4}} \approx 7\% \text{ NAV}$$