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DECREE

of the National Bank of Slovakia

of 16 June 2009

concerning the methods of establishing the value of assets in a pension fund and a supplementary pension fund and on the amendment to the Decree of the Ministry of Finance of the Slovak Republic No. 217/2005 Coll. concerning the own resources of a supplementary pension asset management company and the methods and procedures to be followed in determining the value of assets in supplementary pension funds, as amended

The National Bank of Slovakia, pursuant to Article 72(l) of the Act No. 43/2004 Coll. on retirement pension saving and on the amendments to certain laws, as amended by the Act No. 747/2004 Coll., pursuant to Article 33(6) and Article 53e(6) of the Act No. 650/2004 Coll. on supplementary pension saving and on the amendment to certain laws, as amended by the Act No. 449/2008 Coll., has enacted the following:

Section I

General provisions

Article 1

Specification of terms

For the purposes of this Decree, terms below shall have the following meaning:

a) management company: a pension fund management company[1] and a supplementary pension asset management company[2],

b) fund: pension fund and supplementary pension fund,

c) foreign collective investment undertaking: a foreign collective investment undertaking meeting the requirements laid down by legally binding enactments of the European communities and the European Union under a special legal regulation[3] and other foreign collective investment undertakings meeting the requirements laid down by a special regulation,[4]

d) real value of a financial instrument[5]: price that may be achieved in trading a financial instrument in an independent transaction between informed and voluntarily participating parties; real value of an instrument is the current market price of an instrument or the theoretical price of an instrument,

e) market price of a financial instrument: close rate of a financial instrument achieved on a principal market, published by the organizer of a principal regulated market or by an information system; where the close rate of a financial instrument does not include aliquot interest yield, market price shall be determined using a close rate increased by aliquot interest yield calculated using the proce-

[1] Article 47 of the Act No. 43/2004 Coll. on retirement pension saving and on the amendments to certain acts, as amended.

[2] Article 22 of the Act No. 650/2004 Coll. on supplementary pension saving and on the amendments to certain acts, as amended.

[3] Article 81(1)(c) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll. Article 53(1)(c) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

[4] Article 81(1)(d) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll. Article 53(1)(d) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

[5] Article 5 of the Act No. 566/2001 Coll. on securities and investment services and on amendments to certain acts, as amended (Securities Act).

dure specified in Appendix No 1,

f) information system: a generally accepted information system publishing official market prices of financial instruments, used by a management company to establish the value of financial instruments on the basis of an agreement with the fund depository,

g) theoretical price of a financial instrument: qualified estimate of the price of a financial instrument established using the procedure specified herein,

h) business day: business day for a respective financial instrument on the principal market,

i) yield curve: curve representing yields to maturity of financial instruments in a relevant business day, depending on their residual maturity, and providing information on the time structure of interest rates,

j) zero coupon yield curve: yield curve representing yields to maturity of zero coupon financial instruments,

k) bootstrapping: construction method of the zero coupon bond yield curve for a relevant financial instrument, derived from yield curve,

l) underlying asset: financial instruments and other values, especially interest rates, currency rates and financial indices to which a financial derivative is related or from which it is derived,

m) fixed term transaction: transaction whose fulfilment has been agreed in such a way that the period between its conclusion and its settlement is longer than that of a spot transaction, provided this transaction is binding for both parties,

n) forward: fixed term transaction wherein a party undertakes to add or withdraw an agreed amount of a financial instrument on an agreed day, for a price agreed upon in that transaction, or to pay an agreed amount of funds representing the difference between the agreed price and the market price of an underlying instrument,

o) FRA transaction: fixed term transaction wherein a contractual party undertakes to pay within a future term agreed in that transaction the difference between the pre-agreed interest on an agreed principal for its agreed maturity period and the interest on that agreed principal for the same maturity period commencing on a day set in the transaction, which will be actually offered on this day,

p) FX forward: fixed term transaction wherein a party undertakes, when concluding a transaction, to add or withdraw on an agreed day an agreed amount of foreign currency in the rate to domestic or other agreed currency, or to pay an agreed amount of funds in domestic currency or another agreed currency determined by the difference between the agreed rate and the spot rate of that foreign currency to domestic currency or to another agreed currency,

q) swap: fixed term transaction wherein a party undertakes to swap an agreed amount of a financial instrument for another financial instrument on an agreed day, for a price agreed in the transaction,

r) IRS swap: fixed term transaction wherein a party undertakes to swap on an agreed day the interest on a specified principal calculated with floating interest rate for the interest on a specified principal calculated with fixed interest rate, wherein both payments are denominated in the same currency,

s) basis swap: fixed term transaction wherein a party undertakes to swap on an agreed day the interest on a specified principal calculated with floating interest rate for an interest on a specified principal calculated using fixed interest rate, wherein both payments are denominated in the same currency,

t) FX swap: fixed term transaction wherein a party undertakes to swap on an agreed day one currency for another using the spot rate for such currency valid as of the transaction date, or a forward rate in this currency valid as of the transaction date, and to swap back the same currencies after the lapse of the agreed period using an agreed forward rate valid on the maturity date of the transaction,

u) cross-currency interest swap: fixed term transaction wherein a party undertakes to swap on an agreed day one currency for another currency using the spot rate for such currency valid as of the transaction date, or an agreed forward rate for this currency valid as of the transaction commencement date, and to swap back the same currencies after the lapse of the agreed period using an agreed forward rate valid on the maturity date of

that transaction, wherein parties mutually pay interest on the swapped foreign currency volumes according to agreed interest rates; swap and reverse swap of foreign currencies may be notional,

v) option: the right of one party to withdraw or add an underlying instrument and an obligation of the other party, upon request by the former, and to add or withdraw such underlying instrument at the price agreed in the transaction; the period between the conclusion and the settlement of a transaction is longer than in the case of a spot transaction,

w) CDS swap: financial derivative wherein one party pays the other party regular payments within the terms agreed on the transaction date, while the latter undertakes to provide the former with financial protection in the case of a pre-agreed credit event (default of the issuer of a respective financial instrument),

x) CDS spread: annual payment expressed as a percentage share of the nominal value of a CDS swap, whose amount depends on the credit quality of the issuer of the financial instrument from which a CDS swap is derived,

y) member country: member country of the European Economic and Monetary Union of the European Communities, a member country of the European Economic Area, the United States of America and Japan,

z) average modified duration: the proportion of a change in the value of assets in a pension fund in the case of a unit interest rate change, which directly or indirectly affects the value of assets in a pension fund.

Determination of the value of contributions and penalties, deposits and financial instruments

Article 2

Determination of the value of contributions and penalties

Contributions[6] and penalties[7] are valuated using nominal value as of the day of their deposition on a current account with the fund depository.

Article 3

Determination of the value of deposits

Funds on a current account and deposit account[8] are valuated using the sum of nominal value and the value of aliquot interest yield falling to a deposit's valuation date specified using the procedure mentioned in Annex No. 2.

Article 4

Determination of the value of transferable securities accepted for trading on a regulated market

(l) Transferable securities[9] accepted for trading on a regulated market[10] are valuated using the market price of a transferable security published for the valuation date of a respective transferable security, unless specified otherwise herein.

(2) Principal market shall mean a market specified as principal for a transferable security in the information system. Where it is not possible to unequivocally determine the principal market for a transferable security on the basis of data from the information system, then the principal market shall mean a regulated market that is primary for such transferable security on the basis of the issuing conditions of such transferable security[11].

(3) Where the market price of a transferable security is not published on the day when the price of a transferable security is determined, then such trans-

[6] Article 20 of the Act No. 43/2004 Coll. as amended.

[7] Article 72(1) of the Act No. 43/2004 Coll. as amended by the Act No. 747/2004 Coll.

[8] Article 81(1)(f) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
Article 53(1)(e) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

[9] Article 81(3) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
Article 53(1)(a) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

[10] Article 5(j) of the Act No. 594/2003 Coll. on collective investment and on the amendments to certain acts, as amended by the Act No. 209/2007 Coll.

[11] Article 3(4)(e) of the Act No. 429/2002 Coll. on stock exchange, as amended.

ferable security shall be valuated in the following manner:

a) in case of a debt security, using theoretical price determined in line with the procedure mentioned in Annex No. 3,
b) in case of an equity security or a security whose value is bound to the value of financial indices (hereinafter referred to as "ETF security"),[12] using the last market price provided this price is not older than ten business days inclusive of the valuation day of an equity security/ETF security and that no economic changes occurred on the financial market or in the issuer of this equity security/ETF security.

(4) Where the last market price of an equity security/ETF security is older than ten business days inclusive of the valuation day of an equity security/ETF security and if no economic changes occurred on the financial market or in the issuer of this equity security/ETF security, then the equity security/ETF security shall be valuated in the following manner:

a) in the case of an equity security whose issuer or securities issued by this issuer have the required long-term international rating[13] given to them by a rating agency included in the list maintained by the National Bank of Slovakia under a special regulation,[14] using the last market price uniformly decreased each working day throughout the following 100 working days by a proportional part of the last market price, to the following lowest values:
   1. 85 % of the last market price if the highest degree rating has been assigned,
   2. lowered by 10 percentage points for each subsequent rating grade against the value corresponding with the preceding rating grade, if the assigned rating is lower than the highest,
b) in the case of an equity security whose issuer or debt securities issued by this issuer do not have the requested long-term international rating assigned by a rating agency included in the list maintained by the National Bank of Slovakia under a special regulation[14] or an ETF security, using the last market price uniformly decreased each working day throughout the subsequent 100 working days by a proportional part of the last market price, with the following lowest values:
   1. difference between the last market price and the annual decisive deviation of the market price; annual decisive deviation of the market price is the decisive deviation of the market price of an equity security or an ETF security if such equity security/ETF security had its market price published for at least 30 days in the last 365 days, or
   2. zero.
c) in the case of economic changes on the financial market or in the issuer of an equity security/ETF security; the scope of the expected impact of economic changes shall be assessed upon agreement with the fund depository, using the last price under subparagraphs (a) or (b) or paragraph (3)(b) lowered by the expected impact of economic changes in the financial market or in the issuer of an equity security/ETF security on the value of that equity security/ETF security,

(5) Economic changes mean the emergence of such changes in the financial market or in the issuer of a financial instrument that cause non-standard behaviour on the financial market, while it may be simultaneously assumed that due to the impact of that behaviour, valuation determined by a standard procedure does not correspond to the real value of a respective financial instrument.

(6) If the price of a transferable security under par. (1) has been published but, on the basis of a decision of a management company and an agreement with the fund depository, does not correspond with the price that may be achieved under standard conditions in a transaction with a transferable security, then the price of that transferable security shall be determined with due expert care upon agreement with the fund depository.

[12] Article 81(3) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
[13] Article 90(8) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
[14] Article 6(16)(e) of the Act No. 483/2001 Coll. on banks and on the amendments to certain acts, as amended.

Article 5

Determination of the value of transferable securities from new issues

The value of a transferable security from a new issue[15] shall be determined using Article 4(3) and (4) proportionally.

Article 6

Determination of the value of financial market instruments

(l) A financial market instrument accepted for trading on a regulated market shall be valuated using Article 4(1) in the same manner.

(2) Where it is not possible to establish the price of a financial market instrument accepted for trading on a regulated market on the day as of which the price of a financial market instrument is determined, then a financial market instrument accepted for trading on a regulated market shall be valuated using the procedure laid down in Annex No. 4. In the case of a different financial market instrument such as a treasury bill or a certificate of deposit, a financial market instrument shall be valuated adequately using the procedure laid down in Annex No. 3, unless specified otherwise herein.

(3) A financial market instrument not accepted for trading on a regulated market shall be valuated using paragraph 2 in the same manner.

Article 7

Determination of the value of unit certificates of open-end mutual funds and of securities of foreign collective investment undertakings

(l) An open-end mutual fund unit[16] shall be valuated using the product of shares indicated in an open-end mutual fund unit and the current share price announced by a management company[17] for the day as of which the value of an open-end mutual fund unit is determined. Where current share has not been announced, an open-end mutual fund unit shall be valuated using the last announced current share price.

(2) Where an application for the payout of an open-end mutual fund unit is submitted and the same is not paid out as at the valuation day of that open-end mutual fund unit, the value of such mutual fund unit shall be determined using the current share price announced by a management company for the day on which the application for the payout of an open-end mutual fund unit is delivered to it.

(3) Where an application for the payout of a mutual fund unit has been submitted and the payout of mutual fund units was halted[18] prior to the payout of that particular mutual fund unit, the value of such mutual fund unit shall be determined using the last announced current share value.

(4) Securities of a foreign collective investment undertaking accepted for trading on a regulated market shall be valuated using the procedure laid down by Article 4(1) and (3)(b). Where it is not possible to valuate a foreign collective investment undertaking's security accepted for trading on a regulated market pursuant to the first sentence, or where a foreign collective investment undertaking's security was not accepted for trading on a regulated market, then such foreign collective investment undertaking's security shall be valuated adequately pursuant to paragraph (1).

Article 8

Determination of the value of mutual fund units of special real estate mutual funds

(l) Unit of a special real estate fund[19] whose shareholders are entitled to be paid out such a mutual

[15] Article 81(1)(b) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
Article 53(1)(b) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.
[16] Article 35 of the Act No. 594/2003 Coll.

[17] Article 95(1)(a) of the Act No. 594/2003 Coll.
[18] Article 43 of the Act 594/2003 Coll. as amended
[19] Article 73(a) of the Act No. 594/2003 Coll. as amended

fund unit from the assets in a special real estate fund upon their request, shall be valuated according to Article 7(1).

(2) Unit of a special real estate fund whose shareholders are not entitled to be paid out such a mutual fund unit from the assets of the special real estate fund shall be valuated using Article 7(1) proportionally.

Article 9

Determination of the value of financial derivatives

(l) Financial derivatives[20] accepted for trading on a regulated market shall be valuated according to Article 4(1).

(2) Where it is not possible to valuate a financial derivative accepted for trading on a regulated market in accordance with Article 4(1), the value of such financial derivative shall be determined using theoretical price as laid down by paragraph (3) unless specified otherwise herein.

(3) Theoretical price of a financial derivative shall be determined, in the case of a

a) FRA transaction, using the procedure laid down in Annexes No. 5 and 6,
b) FX forward, according to the procedure laid down in Annexes No. 5 and 7,
c) forward purchase or sale of debt security and forward purchase or sale of equity security, using the procedure laid down in Annexes No. 5 and 8,
d) IRS swap, following the procedure laid down in Annexes No. 9 and 10,
e) FX swap, following the procedure laid down in Annexes No. 9 and 11,
f) basis swap, following the procedure laid down in Annexes No. 9 and 12,
g) cross-currency interest rate swap, using the procedure laid down in Annex No. 13,
h) European option, using the procedure laid down in Annex No.14.

(4) The value of a financial derivative not accepted for trading on a regulated market[21] shall be determined using the theoretical price and its determination shall be subject to paragraph (3) in the same manner, unless specified otherwise herein.

(5) Along with the procedures mentioned in the Annexes hereto, theoretical price of a financial derivative may also be determined using other standard economic and mathematical models for the determination of the value of a financial instrument, subject to a prior agreement thereon with the fund depository and provided that expert care is taken.

Article 10

(l) A financial instrument whose value cannot be determined using the procedures laid down by Articles 2 to 9 shall be valuated using theoretical price established by a management company upon agreement with the fund depository. Theoretical price of such a financial instrument shall be determined as the difference between the current value of future money income and the current value of future money expenses arising from a financial instrument. Future money income and future money expenses are discounted to current value by a discount factor including the required interest income determined using the procedure laid down in Annex No. 15 and, in the case of a debt security, a risk premium determined using the procedure laid down in Annex No. 16.

(2) Where it is impossible to determine the price of a financial instrument using the procedure laid down in paragraph (1), theoretical price shall be determined in line with other standard economic and mathematical models for the determination of the value of a respective financial instrument upon agreement with the fund depository.

(3) Theoretical price of a financial instrument shall

[20] Article 81(1)(g) of the Act No. 43/2004 Coll. as amended by the Act No. 449/2008 Coll.
Article 53(1)(f) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

[21] Article 53(1)(g) of the Act No. 650/2004 Coll. as amended by the Act No. 449/2008 Coll.

be determined using due expert care[22] so that it corresponds with the price that may be achieved under standard conditions in the case of a transaction with that financial instrument.

Article 11

The value of yields from a financial instrument that are not included in the price of a respective financial instrument shall be determined using their value as of the day of their depositing on the fund current account with the fund depository.

Common provisions

Article 12

Determination of the value of receivables and liabilities

(l) Receivables and liabilities shall be valuated using their nominal value as of the valuation day of the respective receivable/liability.

(2) The value of a receivable determined as per paragraph 1 shall be reduced by

a) 10 % of its nominal value in the case of a receivable after a maturity period of over 10 days,
b) 33 % of its nominal value in the case of a receivable after a maturity period of over 30 days,
c) 66 % of its nominal value in the case of a receivable after a maturity period of over 60 days,
d) 100 % of its nominal value in the case of a receivable after a maturity period of over 90 days,

(3) The value of all receivables against a debtor whose assets are subject to bankruptcy or reorganization proceedings[23] or other similar proceedings under the law of the debtor's country of establishment, shall be determined with expert care on the basis of estimated proceeds from the receivable following an agreement with the fund depository and the National Bank of Slovakia as of the day when the management company learned of these facts. The value of all receivables against a debtor under liquidation[24] or subject to a similar proceeding under the law of the debtor's country of establishment shall be determined in line with the first sentence.

(4) The value of all receivables against a debtor whose assets were not accepted for a bankruptcy proceeding due insufficient funds, shall be lowered to zero value as of the day when the management company learned of this fact.

Article 13

Determination of the value of a financial instrument in foreign currency

(l) The value in euro of a financial instrument whose value is expressed in foreign currency shall be recalculated using the reference exchange rate set and published by the European Central Bank[25] for the day when the value of that financial instrument is determined.

(2) The value in euro of a financial instrument whose value is expressed in a foreign currency whose reference exchange rate is not set and published by the European Central Bank[25], shall be first recalculated using the exchange rate of US dollar to this currency published by the central bank of the country where that currency is used as legal tender, and the value thus obtained in US dollars shall then be recalculated to euro using the exchange rate mentioned in paragraph (1).

Article 14

[22] Article 20 (3) of the Act No. 594/2003 Coll. as amended.
[23] Act No. 7/2005 Coll. on bankruptcy and composition and on amendments to certain laws, as amended.
[24] Articles 70 to 75(a) of the Commercial Core as amended.
[25] Article 12 sec. 12.1. of the Protocol of the Statute of the European System of Central Banks and of the European Central Bank (OJ C321E, 29/12/2006).

(l) The value of a financial instrument issued by an issuer whose assets are subject to bankruptcy, reorganization,[23] or similar proceedings under the law of the issuer's country of establishment shall be determined, as of the day when the management company learned of this fact, with expert care on the basis of estimated proceeds upon agreement with the fund depository and the National Bank of Slovakia, unless specified otherwise herein. The value of a financial instrument issued by an issuer under liquidation[24] or subject to a similar proceeding under the law of its country of establishment, shall be determined as per the first sentence.

(2) Where a government guarantee[26], protection from the Investment Guarantee Fund[27], from the Deposit Protection Fund[28] or a similar foreign investment and deposit protection system or a similar government guarantee, the value of that financial instrument shall be determined in the amount of guarantee provided, taking into account the guarantor's credit quality.

(3) The value of a financial instrument issued by an issuer whose assets were not accepted for a bankruptcy proceeding due to insufficient funds, shall be lowered to zero value as of the day when the management company learned of this fact.

Article 15

Cancellation provision

The Decree of the Ministry of Finance of the Slovak Republic No. 48/2005 Coll. on methods and procedures for determining the value of assets in a pension fund, and on the method for determining the value of securities in a pension fund is hereby declared null and void.

[26] Act No. 386/2002 on state debt and state guarantees and on the amendment to the Act No. 291/2002 Coll. on the state treasury and the amendment to certain laws, as amended.
[27] Article 80 par. 1 of the Act No. 566/2001 Coll. as amended by the Act No. 594/2003 Coll.
[28] Act of the National Council of the Slovak Republic No. 118/1996 Coll. on the protection of bank deposits and the amendment to certain laws, as amended.

Section II

The Decree of the Ministry of Finance of the Slovak Republic No. 217/2005 Coll. concerning the own resources of a supplementary pension asset management company and the methods and procedures to be followed in determining the value of assets in supplementary pension funds, as amended by the Decree No. 605/2006 Coll. and Decree No. 523/2008 Coll. is hereby amended as follows:

1. The wording of Article 7 is:

"Article 7

The method of determining the value of assets in a supplementary pension fund is governed by a special regulation.[8])".

Footnote for the reference 8 has the following wording:
"8) Decree of the National Bank of Slovakia No. 246/2009 Coll. concerning the methods of establishing the value of assets in a pension fund and a supplementary pension fund and on the amendment to the Decree of the Ministry of Finance of the Slovak Republic No. 217/2005 Coll. concerning the own resources of a supplementary pension asset management company and the methods and procedures to be followed in determining the value of assets in supplementary pension funds, as amended.".

2. In Annex to Section C "Adequacy of Own Funds", row 11 has the following wording: "Own funds are adequate [Article 33(3)(a) of the Act]".

3. In Annex to the Section C "Adequacy of Own Funds", row 12 has the following wording: "Own funds are adequate [Article 33(3)(b) of the Act]".

Section III

This Decree shall enter into force on 1 July 2009.

Ivan Šramko, m.p.

Annex No. 1
to the Decree No. 246/2009 Coll.

Determination of the value of an aliquot interest yield

Aliquot interest yield shall be calculated using the formula:

$AIY = C \bullet N \bullet cont(t)$,

where

AIY - aliquot interest yield as of the valuation day,
C - coupon rate for current coupon period,
N - nominal value of a financial instrument,
t - number of days since the last coupon payment or the number of days since the beginning of the first coupon period,
con() - the length of the period calculated according to convention under the conditions of issue,

Annex No. 2
to the Decree No. 246/2009 Coll.

Determination of the value of funds on a current account and a deposit account

The value of funds on a current account and a deposit account shall be calculated using the following formula:

$$HV_t = \sum C_i \left(1 + r_i \cdot con(t - t_i) \frac{100 - d}{100} \right)$$

where

C_i - money flow in time t_i
r_i - interest rate at which the respective money flow is paid interest on
con() - length of the period calculated according to convention agreed in the deposit conditions,
d - withholding tax as specified in Article 43 of the Act No. 595/2003 Coll. on income tax, as amended, expressed as a percentage.

Annex No. 3
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a debt security

(l) Theoretical price of a debt security with a maturity of less than one year inclusive shall be calculated in the following manner:

$$P = \sum_{i=1}^{n} \frac{C_i}{(1 + (r_i + s) \cdot con(t_i))} + \frac{N}{(1 + (r_n + s) \cdot con(t_n))}$$

where

P - theoretical price of a debt security including aliquot interest yield,
r_i - required interest yield determined according to Annex No.15,
s - risk premium determined according to Annex No.16,
N - nominal value of a debt security,
C_i - the value of the ith coupon from a debt security; where the coupon rate is derived from the interbank market rate, future coupon rates shall be determined using the formula mentioned in Annex No. 6, par. (3) and the forward rate of the interbank market derived from the interbank market yield curve; where it is not possible to use the interbank market yield curve, future coupon rates shall be derived using the swap interest rate curve,
t_i - number of days to maturity of the ith coupon from a debt security, in days,
i - index of the future coupon of a debt security,
n - number of the future coupons of a debt security,
t_n - number of days to maturity of a debt security, in days,
$con()$ - length of period calculated according to convention under the issuing conditions of a debt security.

(2) Theoretical price of a debt security with a maturity of more than one year shall be calculated in the following manner:

$$P = \sum_{i=1}^{n} \frac{C_i}{(1 + (r_i + s))^{con(t_i)}} + \frac{N}{(1 + (r_n + s))^{con(t_n)}}$$

where

P - theoretical price of a debt security including aliquot interest yield,
r_i - required interest yield determined according to Annex No.15,
s - risk premium determined according to Annex No.16,
N - nominal value of a debt security,
C_i - the value of ith coupon from a debt security; where the coupon rate is derived

from the interbank market rate, future coupon rates shall be determined using the formula mentioned in Annex No. 6, sec. 3 and the forward rate of the interbank market derived from the yield curve of the interbank market; where it is not possible to use the yield curve of the interbank market, future coupon rates shall be derived using the swap interest rate curve,

t_i - number of days to maturity of the i^{th} coupon from a debt security, in days,

i - index of the future coupon of a debt security,

n - number of the future coupons of a debt security,

t_n - number of days to maturity of a debt security, in days,

$con()$ - length of period calculated according to convention under the issuing conditions of a debt security.

Annex No. 4
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a financial market instrument

(l) Theoretical price of a treasury bill shall be calculated in the following manner:

$$P = \frac{N}{1 + r \cdot con(t)},$$

where

P - theoretical price of a treasury bill,
N - nominal value of a treasury bill,
r - required interest yield determined according to Annex No.15,
t - the number of days to maturity of the treasury bill,
con() - length of period calculated according to convention under the issuing conditions,

(2) Theoretical price of a certificate of deposit shall be calculated in the following manner:
a) theoretical price of a certificate of deposit with maturity of less than one year inclusive:

$$P = N \frac{(1 + r_{vl} \cdot con(t))}{(1 + r \cdot con(t^*))},$$

b) theoretical price of a certificate of deposit with maturity of more than one year:

$$P = N \frac{(1 + r_{vl})^{con(t)}}{(1 + r)^{con(t^*)}},$$

where

N - nominal value of a certificate of deposit,
r_{vl} - annual interest rate of a certificate of deposit valid for the current period, expressed as a percentage,
r - required interest yield determined according to Annex No. 15,
t - total maturity period of a certificate of deposit, in days,
t^* - period to maturity of a certificate of deposit, in days as of the valuation date,
con() - length of period calculated according to convention under the issuing conditions.

Annex No. 5
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a forward

(l) Theoretical price of a forward with maturity of less than one year inclusive shall be calculated in the following manner:

$$P = P_{poh} - P_{zav},$$

$$P_{poh} = \frac{F_{poh}}{(1 + r \cdot con(t))},$$

$$P_{zav} = \frac{F_{zav}}{(1 + r \cdot con(t))},$$

where

P - theoretical price of a forward,
P_{poh} - value of discounted receivables from a forward,
P_{zav} - value of discounted forward liabilities,
F_{poh} - forward value of receivables from a forward,
F_{zav} - forward value of forward liabilities,
t - residual maturity period of a forward, in days,
r - required interest yield determined according to Annex No. 15,
$con()$ - length of period calculated according to convention under the conditions of a respective derivative,

(2) Theoretical price of a forward with maturity of more than one year shall be calculated in the following manner:

$$P = P_{poh} - P_{zav},$$

where

$$P_{poh} = \frac{F_{poh}}{(1 + r)^{con(t)}},$$

$$P_{zav} = \frac{F_{zav}}{(1 + r)^{con(t)}},$$

where

P - theoretical price of a forward,
P_{poh} - value of discounted receivables from a forward,
P_{zav} - value of discounted forward liabilities,
F_{poh} - forward value of receivables from a forward,
F_{zav} - forward value of forward liabilities,
t - residual maturity period of a forward, in days,
r - required interest yield determined according to Annex No.15,
$con()$ - length of period calculated according to convention under the conditions of a respective derivative,

Annex No. 6
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of an FRA transaction

(l) Theoretical price of an FRA transaction with maturity of up to one year shall be calculated using the procedure laid down in Annex No. 5, whereas if financial settlement occurs
a) on day t_2,

$F_{poh} = N(1 + r_{fra} \cdot con(t_{fra}))$ a $F_{zav} = N(1 + r_{deal} \cdot con(t_{fra}))$, if the agreed forward interest rate is paid and if the forward interest rate of the respective day is accepted, or
$F_{poh} = N(1 + r_{deal} \cdot con(t_{fra}))$ a $F_{zav} = N(1 + r_{fra} \cdot con(t_{fra}))$, if the forward interest rate of the respective day is paid and if the agreed forward interest rate is accepted,

b) day t_1,

$F_{poh} = N$ a $F_{zav} = N \frac{(1 + r_{deal} \cdot con(t_{fra}))}{(1 + r_{fra} \cdot con(t_{fra}))}$, if the agreed forward interest rate is paid and the forward interest rate of a respective day is accepted, or

$F_{poh} = N \frac{(1 + r_{deal} \cdot con(t_{fra}))}{(1 + r_{fra} \cdot con(t_{fra}))}$ a $F_{zav} = N$, if the forward interest rate of a respective day is paid and the agreed forward interest rate is accepted,

where

N	- agreed principal,
r_{deal}	- agreed forward interest rate for the period between t1 and t2,
r_{fra}	- forward interest rate of a respective day for the period between t1 and t2,
$t_{fra} = t_2 - t_1$	- the FRA transaction period, in days,
con()	- length of period calculated according to convention under the conditions of the respective derivative,

(2) Theoretical price of an FRA transaction with maturity of more than one year shall be calculated using the procedure laid down in Annex No. 5, whereas if financial settlement occurs
a) on day t_2,

$F_{poh} = N(1 + r_{fra})^{con(t_{fra})}$ a $F_{zav} = N(1 + r_{deal})^{con(t_{fra})}$, if the agreed forward interest rate is paid and the forward interest rate of a respective day is accepted,
$F_{poh} = N(1 + r_{deal})^{con(t_{fra})}$ a $F_{zav} = N(1 + r_{fra})^{con(t_{fra})}$, if the forward interest rate of a respective day is paid and the agreed forward interest rate is accepted,

b) on day t_1,

$$F_{poh} = N \text{ a } F_{zav} = N \frac{(1 + r_{deal})^{con(t_{fra})}}{(1 + r_{fra})^{con(t_{fra})}}$$, if the agreed forward interest rate is paid and the forward interest rate of a respective day is accepted,

$$F_{poh} = N \frac{(1 + r_{deal})^{con(t_{fra})}}{(1 + r_{fra})^{con(t_{fra})}} \text{ a } F_{zav} = N$$, if the forward interest rate of a respective day is paid and the agreed forward interest rate is accepted,

where

N	- agreed principal,
r_{deal}	- agreed forward interest rate for the period between t_1 and t_2,
r_{fra}	- forward interest rate of a respective day for the period between t_1 and t_2,
$t_{fra} = t_2 - t_1$	- the FRA transaction period, in days,
con()	- length of period calculated according to convention under the conditions of the respective derivative,

(3) Where the forward interest rate of a respective day is unavailable for the period between t_1 and t_2, it shall be determined using the formula:

$$r_{fra} = \left(\frac{(1 + r_2)^{con(t_2)}}{(1 + r_1)^{con(t_1)}} - 1 \right) \frac{1}{con(t_2 - t_1)}$$

where

r_{fra}	- forward interest rate for the period (t_2- t_1) valid from t_1,
r_1	- required interest yield calculated using the procedure laid down in Annex No.15 for the period t_1,
r_2	- required interest yield calculated using the procedure laid down in Annex No.15 for the period t_2
con()	- length of period calculated according to convention under the conditions of the respective derivative,

Annex No. 7
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of an FX forward

(l) The theoretical price of an FX forward shall be calculated using the procedure laid down in Annex No. 5, whereas:

$F_{poh} = N_{poh} \bullet FR_{poh}$ and
$F_{zav} = N_{zav} \bullet FR_{zav}$

where

N_{poh} - agreed volume of purchased currency,
N_{zav} - agreed volume of sold currency,
FR_{poh} - forward rate of the reference currency to purchased currency as of the transaction date,
FR_{zav} - forward rate of the reference currency to sold currency as of the transaction date,

(2) If the forward rate of a foreign currency to the domestic currency or another determined currency is not available as of the valuation day of the FX forward, it shall be calculated using the following procedure:
a) for FX forwards with a maturity of less than one year inclusive:

$$FR_{poh} = SR_{poh} \frac{(1 + r \cdot con(t))}{(1 + r_{poh} \cdot con(t))}, \; FR_{zav} = SR_{zav} \frac{(1 + r \cdot con(t))}{(1 + r_{zav} \cdot con(t))},$$

b) for FX forwards with a maturity of more than one year inclusive:

$$FR_{poh} = SR_{poh} \frac{(1 + r)^{con(t)}}{(1 + r_{poh})^{con(t)}}, \; FR_{zav} = SR_{zav} \frac{(1 + r)^{con(t)}}{(1 + r_{zav})^{con(t)}},$$

where
FR_{poh} - forward rate of reference currency purchased as of the FX forward valuation date,
FR_{zav} - forward rate of reference currency sold as of the FX forward valuation date,
SR_{poh} - spot rate of reference currency to purchased currency as of the valuation date,
SR_{zav} - spot rate of the reference currency to sold currency as of the valuation date,
r - required interest yield for the reference currency determined using the procedure laid down in Annex No. 15 for the period t,
r_{poh} - required interest yield for the purchased currency determined using the procedure laid down in Annex No. 15 for the period t,
r_{zav} - required interest yield for the sold currency determined using the procedure laid down in Annex No. 15 for period t,
$con()$ - length of period calculated according to convention under the conditions of a respective derivative,

Annex No. 8
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a forward purchase or sale of a debt security and forward purchase or sale of an equity security

(l) Theoretical price of a forward purchase or sale of a debt security and equity security shall be calculated using the following procedure:

$P = P_{poh} - P_{zav}$

where
P_{poh} - current value of forward receivables,
P_{zav} - current value of forward liabilities,

(2) Current value of receivables and forward liabilities purchase or sale of a debt security and an equity security with a maturity of less than one year inclusive shall be calculated using the following procedures, in the case of

a) the purchase of the subject of forward, $P_{poh} = S_0$ a $P_{zav} = \frac{F_{deal}}{(1 + r \cdot con(t))}$

b) sale of the subject of forward, $P_{zav} = \frac{F_{deal}}{\left(1 + r\frac{t}{b}\right)}$, $P_{zav} = S_0$

where
P - theoretical price of a forward,
S_o - value of a debt security/equity security as of the valuation day as per Article 4,
F_{deal} - agreed price of a debt security or an equity security,
t - residual maturity period of a forward, in days,
r - required interest yield determined according to Annex No.15,
$con()$ - length of period calculated according to convention under the conditions of a respective derivative,

(3) Current value of a receivable and liability from a forward purchase or sale of a debt security and an equity security with maturity of more than one year shall be calculated using the following procedures, in the case of

a) the purchase of the subject of forward, $P_{poh} = S_0$ a $P_{zav} = \frac{F_{deal}}{(1+r)^{con(t)}}$,

b) the sale of the subject of forward, $P_{poh} = \frac{F_{deal}}{(1+r)^{con(t)}}$ a $P_{zav} = S_0$

where
P - theoretical price of a forward,
S_o - value of a debt security/equity security as of the valuation day as per Article 4,

F_{deal} - agreed price of a debt security or an equity security,
t - residual maturity period of a forward, in days,
r - required interest yield determined according to Annex No.15,
con() - length of period calculated according to convention under the conditions of a respective derivative,

Annex No. 9
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a swap

(l) Theoretical price of a swap with maturity of less than one year inclusive shall be calculated in the following manner:

$$P = P_{poh} - P_{zav}$$

where

$$P_{poh} = \sum_{i=1}^{m}\left(\frac{F_{poh,i}}{1 + r_i \cdot con(t_i)}\right),$$

$$P_{zav} = \sum_{i=1}^{m}\left(\frac{F_{zav,i}}{1 + r_i \cdot con(t_i)}\right).$$

(2) Theoretical price of a swap with maturity of more than one year shall be calculated in the following manner:

$$P = P_{poh} - P_{zav}$$

where

$$P_{poh} = \sum_{i=1}^{m}\left(\frac{F_{poh,i}}{(1 + r_i)^{con(t_i)}}\right),$$

$$P_{zav} = \sum_{i=1}^{m}\left(\frac{F_{zav,i}}{(1 + r_i)^{con(t_i)}}\right),$$

where

P - theoretical price of a swap,
P_{poh} - value of discounted swap receivables,
P_{zav} - value of discounted swap liabilities,
$P_{poh,i}$ - forward price of a swap receivable for the i^{th} payment on the valuation day of a swap,
$P_{zav,i}$ - forward price of a swap liability for the i^{th} payment on the valuation day of a swap,
t_i - residual maturity period of the i^{th} swap payment, in days,
r_i - required interest yield calculated using the procedure laid down in Annex No.15 for period t_i,
i - index of a future swap payment,
m - the number of future swap payments,
$con()$ - length of period calculated according to convention under the conditions of a respective derivative.

Annex No. 10
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of an IRS swap

(l) Theoretical price of an IRS swap with maturity of less than one year inclusive shall be calculated using the procedure laid down in Annex No. 9, where:

$F_{poh,i} = N \cdot r_{swap,i} \cdot con(t_{swap,i})$ a $F_{zav,i} = N \cdot r_{deal,i} \cdot con(t_{swap,i})$ in the case of purchase of agreed interest rate and sale of swap interest rate,

$F_{poh,i} = N \cdot r_{deal,i} \cdot con(t_{swap,i})$ a $F_{zav,i} = N \cdot r_{swap,i} \cdot con(t_{swap,i})$ in the case of sale of agreed interest rate and purchase of swap interest rate,

where
N - agreed principal (notional value).
$r_{swap,i}$ - swap interest rate of the i[th] swap payment on the valuation day of an IRS swap,
$r_{deal,i}$ - agreed swap interest rate of the i[th] swap payment,
$t_{swap,i}$ - length of the i[th] interest period, in days,
con() - length of period calculated according to convention under the conditions of the respective derivative,

(2) Theoretical price of an IRS swap with maturity of more than one year shall be calculated using the procedure laid down in Annex No. 9, where:

$F_{poh,i} = N\left[\left(1 + r_{swap,i}\right)^{con(t_{swap,i})} - 1\right]$ a $F_{zav,i} = N\left[\left(1 + r_{deal,i}\right)^{con(v)} - 1\right]$ in the case of purchase of agreed interest rate and sale of swap interest rate,

$F_{poh,i} = N\left[\left(1 + r_{deal,i}\right)^{con(t_{swap,i})} - 1\right]$ a $F_{zav,i} = N\left[\left(1 + r_{swap,i}\right)^{con(t_{swap,i})} - 1\right]$, in the case of sale of agreed interest rate and purchase of swap interest rate,

where
N - agreed principal (notional value).
$r_{swap,i}$ - swap interest rate of the i[th] swap payment on the valuation day of an IRS swap,
$r_{deal,i}$ - agreed swap interest rate of the i[th] swap payment,
$t_{swap,i}$ - length of the i[th] interest period, in days,
con() - length of period calculated according to convention under the conditions of the respective derivative,

(3) Where the swap interest rate of the i[th] swap payment is not available on the valuation day of an IRS swap, it shall be calculated using the following formula:

$$r_{swap,i} = \left(\frac{\left(1 + r_i\right)^{con(t_i)}}{\left(1 + r_{i-1}\right)^{con(t_{i-1})}} - 1 \right) \frac{1}{con(t_i - t_{i-1})}$$

where

t_i - length of the period of the i^{th} swap payment, in days,

t_{i-1} - length of the period of the $i\text{-}1^{th}$ swap payment, in days,

con() - length of period calculated according to convention under the conditions of a respective derivative,

r_i - required interest yield calculated using the procedure laid down in Annex No.15 for period t_i,

r_{i-1} - required interest yield calculated using the procedure laid down in Annex No.15 for period t_{i-1}.

Annex No. 11
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of an FX swap

(l) Theoretical price of an FX swap shall be calculated using the procedure laid down in Annex No. 9, where:

$F_{poh} = N_{poh} \bullet FR_{poh}$,
$F_{zav} = N_{zav} \bullet FR_{zav}$,

where

N_{poh} - agreed volume of purchased currency,
N_{zav} - agreed volume of sold currency,
$FR_{poh,i}$ - forward rate of the i[th] of reference currency swap to purchased currency on the swap valuation day,
$FR_{zav,i}$ - forward rate of the i[th] of reference currency swap to sold currency on the swap valuation day,

(2) If the forward rate of the i[th] reference currency swap to purchased or sold currency is not available on the swap valuation day, it shall be determined using the following procedure, in the case of
a) an FX swap with maturity of less than one year inclusive:

$$FR_{poh,i} = SR_{poh} \frac{(1 + r_i \cdot con(t_i))}{(1 + r_{poh,i} \cdot con(t_i))}, \quad FR_{zav,i} = SR_{zav} \frac{(1 + r_i \cdot con(t_i))}{(1 + r_{zav,i} \cdot con(t_i))}$$

b) an FX swap with a maturity of more than one year:

$$FR_{poh,i} = SR_{poh} \frac{(1 + r_i)^{con(t_i)}}{(1 + r_{poh,i})^{con(t_i)}}, \quad FR_{zav,i} = SR_{zav} \frac{(1 + r_i)^{con(t_i)}}{(1 + r_{zav,i})^{con(t_i)}}$$

where

SR_{poh} - spot rate of purchased currency to reference currency as of the swap valuation date,
SR_{zav} - spot rate of sold currency to reference currency as of the valuation date of the swap,
r_i - required interest yield for the reference currency determined using the procedure laid down in Annex No. 15 for period t_i,
$r_{poh,i}$ - required interest yield for the purchased currency calculated using the procedure laid down in Annex No. 15 for period t_i,
$r_{zav,i}$ - required interest yield for the sold currency calculated using the procedure laid down in Annex No. 15 for period t_i,
con() - length of period calculated according to convention under the conditions of a respective derivative,

Annex No. 12
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a basic swap

(l) Theoretical price of a basic swap with maturity of less than one year inclusive shall be calculated using the procedure laid down in Annex No. 9, where:

$F_{poh,i} = N \cdot r_{poh,i} \cdot con(t_{swap,i})$ and $F_{zav,i} = N \cdot r_{zav,i} \cdot con(t_{swap,i})$,

where

N - agreed principal (notional value).

$r_{poh,i}$ - swap interest rate of the receivable of the i[th] swap payment on the swap valuation date,

$r_{zav,i}$ - swap interest rate of the liability of the i[th] swap payment on the swap valuation date,

$r_{swap,i}$ - length of the i[th] interest period, in days,

con() - length of period calculated according to convention under the conditions of a respective derivative,

(2) Theoretical price of a basis swap with maturity of less than one year inclusive shall be calculated using the procedure laid down in Annex No. 9, where:

$F_{poh,i} = N\left[(1 + r_{poh,i})^{con(t_{swap,i})} - 1\right]$ a $F_{zav,i} = N\left[(1 + r_{zav,i})^{con(t_{swap,i})} - 1\right]$,

where

N - agreed principal (notional value).

$r_{poh,i}$ - swap interest rate of the receivable of the i[th] swap payment on the swap valuation date,

$r_{zav,i}$ - swap interest rate of the liability of the i[th] swap payment on the swap valuation date,

$r_{swap,i}$ - length of the i[th] interest period, in days,

con() - length of period calculated according to convention under the conditions of a respective derivative,

Annex No. 13
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a cross-currency interest rate swap

(l) Theoretical price of a cross-currency interest rate swap with maturity of less than one year inclusive shall be calculated in the following manner:

$$P_{poh} = \frac{N_{poh} FR_{poh,1}}{1 + r_{d,1} \cdot con(t_1)} + \frac{N_{zav} FR_{zav,2}}{1 + r_{d,2} \cdot con(t_2)} + \sum_{j=1}^{n} \left(\frac{N_{zav} \cdot r_{poh,j} \cdot con(t_{swap,j}) \cdot FR_{zav,j}}{1 + r_{d,j} \cdot con(t_j)} \right),$$

$$P_{zav} = \frac{N_{zav} FR_{zav,1}}{1 + r_{d,1} \cdot con(t_1)} + \frac{N_{poh} FR_{poh,2}}{1 + r_{d,2} \cdot con(t_2)} + \sum_{j=1}^{n} \left(\frac{N_{poh} \cdot r_{zav,j} \cdot con(t_{swap,j}) \cdot FR_{poh,j}}{1 + r_{d,j} \cdot con(t_j)} \right).$$

(2) Theoretical price of a cross-currency interest rate swap with maturity of more than one year shall be calculated in the following manner:

$$P_{poh} = \frac{N_{poh} FR_{poh,1}}{(1 + r_{d,1})^{con(t_1)}} + \frac{N_{zav} FR_{zav,2}}{(1 + r_{d,2})^{con(t_2)}} + \sum_{j=1}^{n} \left(\frac{N_{zav} \left[(1 + r_{poh,j})^{con(t_{swap,j})} - 1 \right] FR_{poh,j}}{(1 + r_{d,j})^{con(t_j)}} \right),$$

$$P_{zav} = \frac{N_{zav} FR_{zav,1}}{(1 + r_{d,1})^{con(t_1)}} + \frac{N_{poh} FR_{poh,2}}{(1 + r_{d,2})^{con(t_2)}} + \sum_{j=1}^{n} \left(\frac{N_{poh} \left[(1 + r_{zav,j})^{con(t_{swap,j})} - 1 \right] FR_{zav,j}}{(1 + r_{d,j})^{con(v)}} \right),$$

where

P_{poh} - value of discounted swap receivables,

P_{zav} - value of discounted swap liabilities,

t_1 - beginning of a cross-currency interest rate swap,

t_2 - end of a cross-currency interest rate swap,

t_j - residual maturity of the j[th] interest rate payment of a swap,

con() - length of period calculated according to convention under the conditions of a respective derivative,

$r_{d,1}$ - required interest yield for the reference currency calculated using the procedure laid down in Annex No. 15 for the period t_1,

$r_{d,2}$ - required interest yield for the reference currency calculated using the procedure laid down in Annex No. 15 for the period t_2,

$r_{d,j}$ - required interest yield for the reference currency calculated using the procedure laid down in Annex No. 15 for the period t_j

N_{poh} - the volume of purchased currency purchased in time t_1 and resold in time t_2,

N_{zav} - the volume of sold currency sold in time t_1 and repurchased in time t_2,

$FR_{poh,i}$ - forward rate of the reference currency to purchased currency to the i[th] swap of the volume of foreign currency as of the swap valuation day,

$FR_{zav,i}$ - forward rate of the reference currency to sold currency to the i[th] swap of the volume of foreign currency as of the swap valuation day,

$r_{poh,j}$ - swap interest rate of the receivable of the j^{th} swap payment as of the swap valuation day,

$r_{zav,j}$ - swap interest rate of the liability of the j^{th} swap payment as of the swap valuation day.

Annex No. 14
to the Decree No. 246/2009 Coll.

Determination of the theoretical price of a European option

(l) Theoretical price of a European call option on equity security from which no dividend is paid shall be calculated using the following procedure:

$P = S_0 N(d_1) - Ee^{-r\frac{1}{b}} N(d_2)$, where

$$d_1 = \frac{\left(r + \frac{\sigma^2}{2}\right)\frac{t}{b} + \ln\frac{S}{E}}{\sigma\sqrt{\frac{t}{b}}},$$

$$d_2 = d_1 - \sigma\sqrt{\frac{t}{b}},$$

where

P - theoretical price of a European call option
S0 - price of an equity security on the valuation day of the option
E - expiry price of an equity security,
t - residual maturity period of an option until expiry, in days,
b - basis of the number of days in a year,
σ - historical volatility of an equity security expressed in years,
r - required continuous compound rate for the period t,
N() - cumulative distribution function of normal division with the medium value of 0 and variance I.

(2) Theoretical price of a European put option on an equity security from which no dividend is paid shall be calculated using the following procedure:

$P = Ee^{-r\frac{1}{b}} N(-d_2) - S_0 N(-d_1)$,where

$$d_1 = \frac{\left(r + \frac{\sigma^2}{2}\right)\frac{t}{b} + \ln\frac{S}{E}}{\sigma\sqrt{\frac{t}{b}}},$$

$$d_2 = d_1 - \sigma\sqrt{\frac{t}{b}},$$

where

P - theoretical price of a European call option
S0 - price of an equity security on the valuation day of the option
E - expiry price of an equity security,
t - residual maturity period of an option until expiry, in days,
b - basis of the number of days in a year,
σ - historical volatility of an equity security expressed in years,
r - required continuous compound rate for the period t,

N() - cumulative distribution function of normal division with the medium value of 0 and variance I.

(3) Where continuous compound rate is not available, it shall be calculated using the following procedure:

$r = In(1 + r_d)$,

where

r_d - required interest yield calculated using the procedure laid down in Annex No.15 for the period *t*.

(4) Where the historical volatility of a respective equity security is not available, it shall be calculated using the following procedure:

$$\sigma = \sigma_d \sqrt{250},$$

where

$$\sigma_d^2 = \frac{1}{n-2} \sum_{i=2}^{n} \left(X_i - \overline{X} \right)^2,$$

$$X_i = \ln \frac{S_i}{S_{i-1}},$$

$$\overline{X} = \frac{1}{n-1} \sum_{i=2}^{n} X_i,$$

where

σ - historical volatility of an equity security expressed in years,

σ_d - historical volatility of an equity security expressed in days,

S_i - price of a respective equity security on day i,

n - number of business days since the beginning of the quotation of the price of an equity security; number of days for which the historical volatility of an equity security is calculated,

i= 1, 2, 3 ... - index of business days since the beginning of the quotation of the price of an equity security.

Annex No. 15
to the Decree No. 246/2009 Coll.

Determination of the required interest yield of money flows arising from a financial instrument

(l) Required interest yield of money flows arising from a financial instrument (hereinafter referred to as "required interest yield") shall be determined using the method of linear interpolation of the yield curve of a zero coupon bond, using the following formula:

$$r = \frac{t^{+} - t}{t^{+} - t^{-}} r^{-} + \frac{t - t^{-}}{t^{+} - t^{-}} r^{+},$$

where

r - required interest yield,
t - maturity period of the money flow from a financial instrument,
t^{+} - the closest longer maturity period available on the yield curve of a zero coupon bond,
t^{-} - the closest shorter maturity period available on the yield curve of a zero coupon bond,
r^{+} - value of the interest rate on the yield curve of a zero coupon bond pertaining to the closest longer maturity period available on the yield curve of a zero coupon bond,
r^{-} - value of the interest rate on the yield curve of a zero coupon bond pertaining to the closest shorter maturity period available on the yield curve of a zero coupon bond.

(2) Unless stated otherwise, all interest rates are expressed as an annual percentage rate.

(3) The yield curve of a zero coupon bond is composed using bootstrapping, in the case of financial instruments with maturity

a) shorter than one year inclusive, from the interbank market interest rates for the currency in which a respective financial instrument is denominated,
b) longer than one year, from interbank market swap interest rates in the currency in which a respective financial instrument is denominated.

Annex No. 16
to the Decree No. 246/2009 Coll.

Determination of the risk premium for a debt security

(l) Risk premium for a debt security represents a positive or negative premium added to the required interest yield or yield to maturity of a respective debt security determined using the procedure laid down in Annex 15. The sum of these values represents the total interest yield or total yield to maturity.

(2) Where the premium amount for a debt security is not available, risk premium for a debt security shall be determined using the average premium for a debt security of the same issuer and in the same currency, with the closest shorter and the closest longer maturity period (hereinafter referred to as "comparable debt security").

(3) Risk premium for a debt security shall be determined as an arithmetical average of risk premiums of comparable debt securities. Risk premiums of comparable debt securities shall be determined using the prices of comparable debt securities determined using the procedure laid down by Article 4(1), if the maturity of a comparable debt security is

a) shorter than one year inclusive, using the procedure laid down in Annex No. 3, section 1,

b) longer than one year, using the procedure laid down in Annex No. 3, section 2.

(4) Where no comparable debt security exists or where its price as per Article 4(1), not older than ten business days, is not available, then the risk premium for a debt security shall be determined as an arithmetical average of risk premiums of debt securities pertaining to the parent company of the issuer of a respective debt security, with the closest shorter and the closest longer maturity period. Risk premiums in the above example shall be calculated using the procedure laid down by paragraph (3) in the same manner.

(5) Where the risk premium for a debt security cannot be determined in line with paragraphs (1) to (4), risk premium for a debt security shall be determined by the management company upon agreement with the fund depository in respect of the issuer's credit quality, the amount and nature of a potential guarantee and the guarantor's credit quality, risk margins of debt securities issued by the same issuer or by its parent company in other currencies, taking into account differences in the interest rates, current CDS spreads, the length of the maturity period of a debt security, and the currency in which a debt security is denominated.

(6) Where the conditions for yields or principal payment of a debt security for which the risk premium is being determined are different from those of existing comparable debt securities, the procedure laid down by paragraph 5 shall be used proportionally.