

KAZAKHSTAN STOCK EXCHANGE

A g r e e d o n

with the Agency of the Republic of
Kazakhstan on Regulation and Supervision of
Financial Market and Financial Organizations

on October 14, 2010

A p p r o v e d

by a decision of Kazakhstan Stock Exchange
Board of Directors

(minutes of meeting # 21
of September 23, 2010)

E f f e c t i v e

from October 18, 2010

METHODOLOGY

of Calculation of the Weighted Average Yield of Debt Securities

Almaty

2010

This Methodology defines the procedure of calculation of values of the weighted average yield for debt securities of any category (sub-category) in any sector of the official list of Kazakhstan Stock Exchange (hereinafter – the Exchange) for any period. It pursues the following purposes:

- 1) to enable the Exchange Board of Directors to fix discount rates in accordance with the Rules of Assessment of Financial Instruments, Listed in Investment Portfolios of Accumulative Pension Funds, approved by Resolution # 109 of the Board of the Agency of the Republic of Kazakhstan on Regulation and Supervision of Financial Market and Financial Organizations (FSA) dated March 28, 2005;
- 2) other purposes provided for in the Exchange's internal documents.

Article 1. General Provisions

1. This Methodology uses terms defined by the Exchange's other internal documents, including the Method of Calculation of Bond Yield and Bond Transaction Sum, approved following decision # 127/1 of the Exchange Board dated November 28, 2002.
2. The weighted average yield of debt securities is determined by value Y calculated for a certain category (sub-category) of a particular sector of the Exchange's official list for a certain period (hereinafter – the analyzed period) in accordance with article 3 hereof.
3. When calculating values of the weighted average yield for debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list for the period analyzed:
 - 1) deals relating to repo transactions are not taken account of;
 - 2) deals concluded in the course of special trading sessions involving offering, selling or repurchase of a financial instrument are not taken into account;
 - 3) account is only taken of completed deals concluded in the Exchange's trading system by use of methods of open trading and involving securities contained in a certain category (sub-category) of a particular sector of the Exchange's official list as of the date of conclusion of a particular deal (with restrictions set in article 2 hereof in mind).

Article 2. Applicable Restrictions

1. In order to ensure compliance of values of the weighted average yield with the objective market-based yield of debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list, parameters of the following deals are excluded from calculation of values of the weighted average yield of debt securities:
 - 1) deals whose yield-to-maturity-for-the-buyer calculated in accordance with chapter 2 of the Method of Calculation of Bond Yield and Bond Transaction Sum, is higher or lower than the upper or the lower limits of the confidence interval set according to item 4 of this article, accordingly;
 - 2) deals whose individual amount calculated in accordance with chapters 3 and 4 of the Method of Calculation of Bond Yield and Bond Transaction Sum is higher or lower than the upper or the lower limits of the confidence interval set according to item 5 of this article, accordingly.
2. Removal of parameters of deals mentioned in item 1 of this article, from the calculation of values of the weighted average yield for debt securities is carried out in two stages:
 - 1) at the first stage parameters of deals with the yield-to-maturity-for-the-buyer of the relevant debt security being higher or lower than the upper or the lower limits of the confidence interval set according to item 4 of this article, accordingly, are excluded;

- 2) at the second stage – after the removal of parameters of deals mentioned in sub-item 1) of this item – parameters of deals whose individual amount is higher or lower than the upper or the lower limits of the confidence interval set according to item 5 of this article, are excluded.
3. For purposes of excluding the influence of one-off deals with admittedly non-market parameters on values of the weighted average yield, only those deals are used for its calculation whose parameters stay within the limits of confidence intervals set for them.

Confidence intervals are set for each restricted parameter separately:

- for values of the yield-to-maturity-for-the-buyer of relevant securities involved in deals;
- for amounts of deals.

Upper and lower limits of confidence intervals are calculated in accordance with items 4 and 5 of this article.

4. The upper limit of the confidence interval for values of the yield-to-maturity-for-the-buyer with regard to deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list is calculated according to the following formula:

$$Y_{\max} = e^{(\bar{Y} + 2,57 * \delta)};$$

the lower limit of the confidence interval for values of the yield-to-maturity-for-the-buyer with regard to deals in debt securities of a certain category (sub-category) of a certain sector of the Exchange's official list is calculated according to the following formula:

$$Y_{\min} = e^{(\bar{Y} - 2,57 * \delta)}, \text{ where}$$

- Y_{\max} – the upper limit of the confidence interval set for values of the yield, in percent per annum;
- Y_{\min} – the lower limit of the confidence interval set for values of the yield, in percent per annum;
- e – base of the natural logarithm;
- \bar{Y} – arithmetic average of the natural logarithms of values of the yield-to-maturity-for-the-buyer with regard to deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list;
- δ – standard deviation of the natural logarithms of values of the yield-to-maturity-for-the-buyer with regard to deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list.

5. The upper limit of the confidence interval for values of deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list is calculated according to the following formula:

$$V_{\max} = e^{(\bar{V} + 2,57 * \delta')};$$

the lower limit of the confidence interval for values of amounts of deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list is calculated according to the following formula:

$$V_{\min} = e^{(\bar{V} - 2,57 * \delta')}, \text{ where}$$

- V_{\max} – the upper limit of the confidence interval set for values of deals' amounts, in tenge;
- V_{\min} – the lower limit of the confidence interval set for values of deals' amounts, in tenge;
- e – base of the natural logarithm;
- \bar{V} – arithmetic average of the natural logarithms of values of deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list;
- δ' – standard deviation of the natural logarithms of values of deals in debt securities of a certain category (sub-category) of a particular sector of the Exchange's official list.

Article 3. Calculation of Values of the Weighted Average Yield for Debt Securities

A value of the weighted average yield of debt securities for a certain category (sub-category) of a particular sector of the Exchange's official list for the period analyzed is calculated according to the following formula:

$$Y = \frac{\sum_{i=1}^n (V_i \times Y_i)}{\sum_{i=1}^n V_i}, \text{ where:}$$

- Y – weighted average yield in percent per annum;
- n – number of deals in securities of a certain category (sub-category) of a particular sector of the Exchange's official list during the period analyzed;
- V_i – amount of the i -th deal in Kazakhstan tenge, calculated in accordance with chapters 3 and 4 of the Method of Calculation of Bond Yield and Bond Transaction Sum;
- Y_i – bond's yield-to-maturity-for-the-buyer on the i -th deal, calculated in accordance with chapter 2 of the Method of Calculation of Bond Yield and Bond Transaction Sum.

President

K. Damitov