

# KAZAKHSTAN STOCK EXCHANGE

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## **Agreed on**

with the Committee on Regulation and Supervision of Financial Market and Financial Organizations of the National Bank of the Republic of Kazakhstan

on August 9, 2011

Acting Chairman of the Committee on Regulation and Supervision of Financial Market and Financial Organizations of the National Bank of the Republic of Kazakhstan

## **Approved**

by Kazakhstan Stock Exchange Board of Directors decision

(minutes of meeting No. 07 of March 31, 2011)

## **Effective**

from August 23, 2011

K. KOZHAKHMETOV

## **NOTICE**

The Methodology has been translated by employees of Kazakhstan Stock Exchange for information purposes only. In case of any incompliance of this translation with the Methodology original version in Russian, the latter prevails.

# **METHODOLOGY**

## **of Securities Valuation**

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Almaty

2011

## LIST OF AMENDMENTS

### 1. Changes No. 1:

- agreed on with the Committee on Regulation and Supervision of Financial Market and Financial Organizations of the National Bank of the Republic of Kazakhstan on December 2, 2011;
- approved by Kazakhstan Stock Exchange Board of Directors decision (meeting minutes No. 28 of October 27, 2011);
- effective from February 1, 2012.

This Methodology defines the procedure for valuation of securities:

- 1) for the purpose of defining the number of repo transactions' subjects, the exact amount of an opening repo transaction, the closing price and the amount of a closing repo transaction in the course of execution of repo transactions in the "automatic" mode in the trading system of Kazakhstan Stock Exchange (hereinafter "the Exchange");
- 2) for the purpose of calculating the opening price of repo transactions, the current market value of a repo transaction's subject, the deficit of a compensatory payment, the amount of a compensatory payment and amount of a closing repo transaction in case of its early execution with repo transactions being carried out by the "nego" method;
- 3) when participants of trading arranged by the Exchange block securities to the benefit of the Exchange in order to be able to meet their liabilities towards the Exchange;
- 4) for other purposes as provided for in internal documents of the Exchange.

### Chapter 1. GENERAL PROVISIONS

1. This Methodology uses terms defined by the Rules of Repo Transactions Execution, the Method of Calculation of Bond Yield and Bond Transaction Sum, as well as other internal documents of the Exchange.
2. Terms used in this Methodology have the following meaning:
  - 1) **"GS"** – government securities (a government security);
  - 2) **"shares of first (second or third) liquidity class"** – shares present as of the date of valuation in the list of shares of the first (second or third) liquidity class) drawn up in accordance with the Methodology of Securities Liquidity Indicators Defining approved by decision No. 341 of the Exchange's Management Board of December 1, 2009 (*this sub-item was changed by the Exchange Board of Directors decision of October 27, 2011*);
  - 3) **"MCI"** – the monthly calculation index used for calculation of pensions, allowances and other social benefits, as well as for applying penalties, taxes and other payments in accordance with the legislation of the Republic of Kazakhstan, whose value is set by acts of the Republic of Kazakhstan regulating the republican budget for corresponding years;
  - 4) **"IFI"** – an international financial institution (international financial institutions);
  - 5) (*this sub-item was excluded by the Exchange Board of Directors decision of October 27, 2011*);
  - 6) **"working day"** – a working day in the Republic of Kazakhstan;
  - 7) **"successful day"** – a working day in the Republic of Kazakhstan, during which at least one completed deal in a security of any type out of securities included in a particular group (sub-group) of securities is registered in the Exchange's trading system;
  - 8) **"Authorized Body"** – a government body exercising control and supervision of the stock market.
3. For purposes of this Methodology, valuation of securities is to be understood as their initial valuation as well as their subsequent revaluation. The result of a security valuation is finding out of its market price according to Chapters 2 and 3 or Chapter 4 of this Methodology.
4. The following is not used for defining of market prices in accordance with this Methodology:
  - 1) parameters of deals concluded in the Exchange's trading system using methods of deals conclusion other than open trading methods;
  - 2) parameters of orders submitted to the Exchange's trading system requesting conclusion of deals by methods of deals conclusion other than open trading methods;
  - 3) parameters of orders submitted to the Exchange's trading system during special trading sessions, and parameters of deals concluded based on those orders, except when active orders from ten or more Exchange members have been registered by the moment of

orders submission expiry during special trading sessions in the Exchange's trading system (this sub-item does not apply to GS of the Republic of Kazakhstan).

5. For purposes mentioned in sub-items 1) and 3) of the preamble of this Methodology, market prices of securities are subject to discounting in accordance with items 29 and 39 of this Methodology.
6. Valuation of a security is not carried out in the absence or under lack of data required for such valuation (e.g. in the absence of deals or orders setting parameters required for valuation of a particular security, or if the number of such deals or orders is insufficient).
7. Bonds are valued in percentage of their face value, shares – in the currency they are quoted in at the Exchange.
8. Valuation of shares is carried out once a week, on the first working day of the given week, as at 09.00 o'clock, Almaty time, of that day. Market prices of shares defined as a result of the valuation are effective during that calendar week.

Valuation of GS of the Republic of Kazakhstan and other debt securities whose trading mode in the Exchange's trading system was set in "net" prices (without taking into account of coupon interest accrued but not paid), including discount debt securities, is carried out every working day as at 09.00 a.m. Almaty time, of that day. Market prices defined as a result of the valuation are effective until the beginning of next working day.

Valuation of debt securities (except for GS of the Republic of Kazakhstan) whose trading mode in the Exchange's trading system was set in "dirty" prices (with taking into account of coupon interest accrued but not paid), is carried out once a week, on the first working day of the given calendar week, as at 09.00 a.m. Almaty time, of that day. Market prices defined as a result of the valuation are effective during that calendar week.

9. If data required for carrying out valuation of a security of a particular type are supplied to the Exchange by a third party, the Exchange shall carry no responsibility for the reliability of such data.
10. Market prices of securities defined by the Exchange according to this Methodology are published by the Exchange on its website ([www.kase.kz](http://www.kase.kz)) once a week, on the first working day of the given calendar week.

Other than that mentioned in the first paragraph of this item, data of the Authorized Body on securities' market prices and/or data required for carrying out valuation of securities may be published on the Exchange website. The Authorized Body publishes the said data on the Exchange's website by itself. The Exchange carries no responsibility for the reliability of the said data, or the timeliness of their publishing.

## **Chapter 2. VALUATION OF GS AND IFI SECURITIES**

11. For valuation purposes, GS of the Republic of Kazakhstan are grouped as follows:
  - 1) the first group – international securities of the Republic of Kazakhstan issued in compliance with the legislation of a state other than the Republic of Kazakhstan;
  - 2) the second group – non-indexed GS of the Republic of Kazakhstan denominated in Kazakh tenge, with a fixed coupon rate (e. g. MEOKAM, MEUKAM); non-indexed discount GS of the Republic of Kazakhstan denominated in Kazakh tenge (e. g., MEKKAM, notes of the National Bank of the Republic of Kazakhstan);
  - 3) the third group – GS of the Republic of Kazakhstan denominated in Kazakh tenge, whose coupon rate is indexed at the rate of inflation in Kazakhstan (e. g., MUIKAM, MOIKAM, MEUJKAM);
  - 4) the fourth group – GS of the Republic of Kazakhstan denominated in foreign currency; GS of the Republic of Kazakhstan denominated in Kazakh tenge, indexed at the level of change in exchange rate of tenge to a particular foreign currency (e. g., MAOKAM);
  - 5) the fifth group – securities of local executive bodies of the Republic of Kazakhstan.

12. The market price of a GS of a particular type out of discount GS of the Republic of Kazakhstan is calculated daily as at 09.00 a.m. Almaty time, according to the following formula:

$$V = \frac{T \times 100}{t \times \frac{Y}{100} + T}, \text{ where}$$

- V – security's market price, in percentage of its face value;  
 T – duration of the settlement year in days, specified for a security of the given type;  
 t – number of days between the date of valuation of a particular security and its maturity date (expiry of its circulation);  
 Y – yield of a security of the given type in percentage per annum, defined in accordance with items 14–26 of this Methodology.
13. The market price of a GS of a particular type out of coupon government securities of the Republic of Kazakhstan is calculated daily as of 09.00 o'clock, Almaty time, each working day, according to the following formula:

$$P = \sum_i^n \frac{\frac{K}{m}}{\left(1 + \frac{Y}{100m}\right)^{\frac{mT_{ki}}{T_0}}} + \frac{100}{\left(1 + \frac{Y}{100m}\right)^{\frac{mT_n}{T_0}}}, \text{ where}$$

- P – market price of a security expressed in percentage of its face value;  
 i – serial number of the coupon period of a security of the given type, starting from the current coupon period;  
 n – number of coupon periods within the circulation period of a security of the given type;  
 Y – yield of a security of the given type in percentage per annum, defined in accordance with items 14–26 of this Methodology;  
 m – basis ratio calculated as the ratio of the settlement year duration in days set for a security of the given type to the coupon period's length in days;  
 T<sub>ki</sub> – number of days between the date of valuation of a security of the given type and date of payment of next coupon thereupon;  
 K – rate of coupon on a security of the given type set for the current coupon period in annual percentage;  
 T<sub>0</sub> – calculation year's duration in days;  
 T<sub>n</sub> – number of days between the date of valuation of a security of the given type and date of its maturity (expiry of its circulation time).

However, if the coupon on a security of the given type is paid out during a "nego" repo transaction's term with securities of the given type being the subject of that repo operation, the coupon's size is not taken into account in the calculation of the market price of the security of the given type.

14. As the yield of a security of a particular type out of government securities of the Republic of Kazakhstan included in the first group, with the yield to be used in the formula stated in item 13 of this chapter, the yield of a security of the mentioned type is used, being an arithmetic average of its "yield to maturity" figures based on the best selling and purchase rates as at 09.00 a.m. Almaty time on the first working day of the week in which the valuation is carried out based on data provided by the Bloomberg agency's information system or (in absence of required quotations) in accordance with item 15 of this chapter. The value of the bond's yield determined in this way is used for the daily calculation of its market price during the entire week mentioned in the previous sentence of this item.

15. In the absence in the Bloomberg agency's information system of quotations for purchase and selling of a security of a particular type out of government securities included in the first group, the bond's yield to be used in the formula stated in item 13 of this chapter is interpreted as an average arithmetic value of the yield of a security of that type determined as follows:
- 1) from all orders for purchase of securities of the given type which were registered in the Exchange's trading system within the last thirty days preceding the mentioned day an order is chosen for each one of those days, indicating the lowest yield for that security;
  - 2) based on yield rates of orders chosen in accordance with sub-item 1) of this item, an arithmetic average yield is determined for a security of that type.
16. As the yield of a security of a particular given type out of government securities of the Republic of Kazakhstan included in the second group, with the yield to be used in the formula stated in item 12 or item 13 (depending on the type of bond) of this chapter, it is to use the yield of a security of the mentioned type, defined by way of interpolation based on the yield curve function obtained in accordance with items 17-23 of this chapter.
17. For purposes of defining the yield curve function mentioned in item 16 of this chapter, all government securities of the Republic of Kazakhstan included in the second group are to be split in sub-groups following a decision of the Expert Committee, depending on the amount of time left to the repayment (to the circulation expiry date) for each security. In such case, one sub-group shall include securities whose dependence of yield to maturity upon the number of days left to the repayment can most precisely be described by one polynomial trend equation<sup>1</sup>.

The Expert Committee's said decision should determine: the number of sub-groups; values of the upper and lower margins of each sub-group in days; the type (degree) of the polynomial trend equation being used for plotting the yield curve for each sub-group. That being the case, the number of the mentioned sub-groups should not be less than two; the sub-groups' margins should be determined in such a way that the value of the preceding sub-group's upper margin should be by not less than 50 days higher than the value of the following sub-group's lower margin.

The Expert Committee takes a decision on splitting of government securities of the Republic of Kazakhstan included in the second group, into sub-groups once in a quarter, not later than five days before the beginning of each calendar quarter, based on the following data prepared by the Exchange's Department of Information and Analysis:

- 1) details of transactions in government securities of the Republic of Kazakhstan from the second sub-group concluded in the Exchange's trading system in the space of not less than three months preceding the date the Expert Committee took the decision;
- 2) information about placement (additional placement) of government securities of the Republic of Kazakhstan included in the second group for not less than three months preceding the date the Expert Committee took the decision;
- 3) aggregated data on the yield (yield curve) to maturity of government securities of the Republic of Kazakhstan included in the second group as for a buyer on transactions concluded in the Exchange's trading system within the space of not less than three months preceding the date the Expert Committee took the decision;
- 4) other information which, in the Expert Committee's opinion may influence its decision.

In case of a significant change in situation on the GS market and/or significant change in the composition of GS of the Republic of Kazakhstan, as well as at the onset of any events capable of causing incorrect calculation of market prices of government securities of the Republic of Kazakhstan included in the second group, the Expert Committee may within a calendar quarter review the number of sub-groups and/or their parameters – values of margins, type and degree of the polynomial trend equation. Such review should be completed not later than on the eve of the first working day of the calendar week in which valuation of second group GS is to be done using the new quantity and/or new parameters of sub-groups.

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<sup>1</sup> More details on the polynomial trend equation are provided in item 19 of this chapter.

18. The polynomial trend equation for any one of the sub-groups whose number and parameters are set in accordance with item 17 of this chapter, is determined by way of approximation of parameters of transactions in GS from a particular group concluded within the last sixty days preceding the first working day of the week in which the valuation takes place (except those mentioned in item 20 of this chapter). In such case the following is used as approximated parameters of each transaction in a security of the given type:

- 1) the yield to maturity of a security of the given type as for a buyer in accordance with that transaction (in annual percentage);
- 2) the number of days between the date of that transaction and maturity date (expiry of its circulation) of a security of the given type.

Approximation of transactions' parameters is carried out using the method of determining the least value of the sum of quadratic deviations of the yield's estimated values from the actual ones.

19. The polynomial trend equation may look as follows<sup>2</sup> (one out of three depending on the equation's degree):

$$Y = aT_n^3 + bT_n^2 + cT_n + d \text{ (cubic equation),}$$

or

$$Y = aT_n^2 + bT_n + c \text{ (quadratic equation),}$$

or

$$Y = aT_n + b \text{ (linear equation), where}$$

Y – yield of a security in annual percentage;

a, b, c, d – equation's coefficients;

T<sub>n</sub> – the number of days between the date of valuation of a security of the given type and its maturity date (expiry of its circulation).

20. If in the space of sixty calendar days preceding the first working day of the calendar week in which valuation is being done there were less than twenty five days successful for GS from a certain sub-group, the yield curve function for GS of that sub-group shall be determined by way of approximating parameters of transactions concluded at the last three auctions for placement and/or additional placement of GS of that sub-group whose execution dates precede the first working day of the mentioned week. In that case, the polynomial trend equation looks as follows:

$$Y = aT_n + b$$

21. If the yield curve function determined for a certain sub-group of GS according to items 18–20, is defined by a value of the determination ratio<sup>3</sup> of less than 0.6 for the cubic equation, from the aggregate of transactions on whose parameters the approximation is based, transactions most deviating from the given trend are excluded successively until the determination ratio R<sup>2</sup> equals or exceeds the level of 0.6. The utmost value of the determination ratio is not fixed for the linear and quadratic equations.

22. Yield curve functions determined for each sub-group in accordance with items 18–21 of this chapter coincide in overlap areas. In that case an overlap area is characterized by the following condition:

$$T \in [D_{n+1}, U_n], \text{ where}$$

T – range of values T<sub>i</sub> (number of days until repayment) in the overlap area;

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<sup>2</sup> For purposes of valuation of second group GS only the polynomial trend equations listed in this chapter may be used. Usage of equations of the fourth degree or higher is not stipulated by this Methodology.

<sup>3</sup> Determination ratio R<sup>2</sup> is used in mathematical statistics. It characterizes the quality of approximation and varies in the range from zero (the lowest quality) to one (the highest quality).

$D_{n+1}$  – the lower margin of sub-group n+1, in days;

$U_n$  – the upper margin of the n-th sub-group, in days.

Alignment occurs through averaging of yield rates in the overlap area according to the following formula:

$$Y_i = \bar{Y}_i \left( \frac{U_n - T_i}{U_n - D_{n+1}} \right) + \bar{\bar{Y}}_i \left( \frac{T_i - D_{n+1}}{U_n - D_{n+1}} \right), \text{ where}$$

$Y_i$  – averaged yield rates in overlap areas, in annual percentage;

$T_i$  – values of the number of days left to repayment in the overlap area;

$\bar{Y}_i$  – values of the yield curve of the n-th sub-group in the overlap area, in annual percentage;

$\bar{\bar{Y}}_i$  – values of the yield curve of sub-group n+1 in the overlap area, in annual percentage;

$D_{n+1}$  – the lower margin of sub-group n+1, in days;

$U_n$  – the upper margin of the n-th sub-group, in days.

23. The resulting yield curve function built in accordance with items 17–22 of this chapter is used for determining the yield of a security of a certain type out from GS of the Republic of Kazakhstan included in the second group, in accordance with item 16 of this chapter.
24. As the yield rate of a security of a certain type out of government securities of the Republic of Kazakhstan included in the third group, with the yield rate to be used in the formula stated in item 13 of this chapter, the yield of a security of that type is used, being calculated as the sum of the fixed annual coupon rate determined upon placement of GS of that type and inflation index for the past elapsed 12 months, whose consumer price index values are known to the Exchange. In that case the calculation of the inflation index is carried out in a way similar to that set by item 79 of the Rules of Issue, Placement, Circulation, Service and Repayment of Government Treasury Obligations approved by Resolution # 466 issued by the Government of the Republic of Kazakhstan on April 3, 2009.

For the purpose of applying it in the mentioned formula as a coupon rate in the current coupon period on a security of a certain type out of GS of the Republic of Kazakhstan included in the third group, the forecast coupon rate for a security of that type is used, being calculated in a way similar to that set by the foregoing paragraph for yield calculation purposes.

25. As the yield rate of a security of a certain type out of government securities of the Republic of Kazakhstan included in the fourth group, with the yield rate to be used in the formula stated in item 13 of this chapter, the yield rate of a security of that type is used, being calculated as follows (with the exception stipulated by item 26 of this chapter):
  - 1) for each one of fifteen days successful for a given GS group preceding the first working day of the week in which valuation is being done, the average weighted rate of the bonds' yield to maturity is calculated, based on parameters of all transactions in GS of the given group concluded on the given day and executed (in that case weighing is done with regard to the volume of the mentioned transactions);
  - 2) an average arithmetic yield rate is calculated based on average weighted rates of yield to maturity of bonds calculated in accordance with sub-item 1) of this chapter.
26. If in the space of 90 calendar days preceding the valuation date there were less than fifteen successful days for GS from the fourth group, the coupon rate on a security of the given type for the current coupon period is used as the yield rate of a security of a certain type out of GS from the fourth group, with the yield rate to be used in the formula stated in item 13 of this chapter.
27. The market price of GS of a certain type out of GS of the Republic of Kazakhstan included in the fifth group being traded in "net" prices at the Exchange, is calculated in a way similar to that

set by item 33 of this Methodology, taking into account the peculiarity set by item 34 of this Methodology.

The market price of GS of a certain type out of GS of the Republic of Kazakhstan included in the fifth group being traded in "dirty" prices at the Exchange, is calculated in a way similar to that set by item 35 of this Methodology.

28. The market price of a bond of a certain type out of foreign GS or IFI securities included in the Exchange's lists being traded in "net" prices at the Exchange, is calculated in a way similar to that set by item 36 of this Methodology.

The market price of a bond of a certain type out of foreign GS or IFI securities included in the Exchange's lists being traded in "dirty" prices at the Exchange, is calculated in a way similar to that set by item 37 of this Methodology.

29. For purposes stated in sub-items 1) and 3) of the preamble of this Methodology, market prices of GS and IFI securities determined in accordance with items 12–28 of this Methodology are subject to discounting, depending on their type:

- 1) market prices of international securities of the Republic of Kazakhstan are discounted at 5 %;
- 2) market prices of tenge-denominated GS of the Republic of Kazakhstan with a fixed coupon rate and tenge-denominated discount GS of the Republic of Kazakhstan with time left from the valuation date to maturity not exceeding 360 days – at 5 %;
- 3) market prices of tenge-denominated GS of the Republic of Kazakhstan with a fixed coupon rate and tenge-denominated discount GS of the Republic of Kazakhstan with time left from the valuation date to maturity exceeding 360 days – at 10 %;
- 4) market prices of foreign currency-denominated GS of the Republic of Kazakhstan and tenge-denominated GS of the Republic of Kazakhstan indexed at the rate of change of the exchange rate between tenge and some foreign currency with time left from the valuation date to maturity not exceeding 360 days – at 10 %;
- 5) market prices of foreign currency-denominated GS of the Republic of Kazakhstan and tenge-denominated GS of the Republic of Kazakhstan indexed at the rate of change of the exchange rate between tenge and some foreign currency with time left from the valuation date to maturity exceeding 360 days – at 15 %;
- 6) market prices of tenge-denominated GS of the Republic of Kazakhstan with an inflation rate-indexed coupon rate and time left from the valuation date to maturity not exceeding 360 days – at 10 %;
- 7) market prices of tenge-denominated GS of the Republic of Kazakhstan with an inflation rate-indexed coupon rate and time left from the valuation date to maturity exceeding 360 days – at 15 %;
- 8) market prices of IFI securities – at 10 %;
- 9) market prices of foreign GS whose issuing country's rating<sup>4</sup> is not lower than "AA-" on Standard&Poor's scale and/or not lower than a similar rating by Fitch or Moody's – at 10 %;
- 10) market prices of foreign GS whose issuing country's rating is not lower than "BBB-" on Standard&Poor's scale and/or not lower than a similar rating by Fitch or Moody's – at 20 %;
- 11) market prices of foreign GS whose issuing country's rating is not lower than "B-" on Standard&Poor's scale and/or not lower than a similar rating by Fitch or Moody's – at 30 %.

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<sup>4</sup> With regard to this item, the highest rating amongst those from the mentioned rating agencies is taken into account.

### Chapter 3. VALUATION OF NON-GOVERNMENT EMISSIVE SECURITIES

30. The market price of a share of a certain type out of shares of the first class liquidity is calculated once a week as at 09.00 a.m. (Almaty time) of the first working day of the given week as a weighted average price of the last completed transactions in shares of that type concluded in the Exchange's trading system. In that case the weighing is carried out with regard to the volume of the mentioned transactions (*this item was changed by the Exchange Board of Directors decision of October 27, 2011*).
31. The market price of a share of a certain type out of illiquid shares included in the Exchange's lists is calculated once a week as at 09.00 o'clock (Almaty time) of the first working day of the given week as a weighted average of the highest prices of orders for purchase of shares of that type, with each one of them (*this paragraph was changed by the Exchange Board of Directors decision of October 27, 2011*):
  - 1) submitted within the past five working days preceding the valuation date, during trading conducted by the Exchange using the method of continuous counter auction;
  - 2) characterized by the volume of not less than 3,000 times of MCI;
  - 3) having been active for not less than 30 minutes or having been a base for a transaction with a volume (transactions with the total volume) not less than 3,000 times of MCI.
32. The market price of a share of a certain type out of shares of second and third liquidity class is calculated once a week as at 09.00 a.m. (Almaty time) of the first working day of the given week based on data provided by the Bloomberg agency's information system as the price of the most recent transaction in shares of that type which was concluded in the calendar week preceding the valuation date.
33. The market price of a bond of a certain type out of bonds issued in accordance with the legislation of the Republic of Kazakhstan included in the Exchange's lists being traded at the Exchange in "net" prices is calculated once a week as at 09.00 o'clock (Almaty time) of each working day as the sum of coupon interest accrued as of the date of valuation but not paid on the bond of that type (taking into account the peculiarity set by item 34 of this chapter) and its "net" price determined once a week as at 09.00 o'clock (Almaty time) of the first working day of the given week as follows:
  - 1) for each one of the last ten working days preceding the first working day of the week in which valuation is being done, orders for purchase of bonds of the given type are chosen, of which every single unit:
    - was submitted during a trading session conducted by the Exchange using the method of continuous counter auction;
    - was characterized by the volume of not less than 2,000 times of MCI in the nominal expression of the debt, and in case of availability of market-makers for the said bonds, – not less than the minimum size of mandatory quotation which was set for them as of the date of assigning such status to them;
    - was active for not less than 30 minutes and/or was a base for a transaction with the volume (transactions with the total volume) of not less than 2,000 times of MCI, and in case of availability of market-makers for the said bonds, – with a volume not less than the minimum size of mandatory quotation which was set for them as of the date of assigning such status to them.
  - 2) for each one of the last ten working days preceding the first working day of the week in which valuation is done, out of orders selected according to sub-item 1) of this item, an order is chosen, according to which the "net" price of a bond of that type is the highest one;
  - 3) the "net" price of a bond of the given type is calculated as an average of "net" prices of orders selected in accordance with sub-item 2) of this item.
34. For purposes of calculating the market price of a discount bond or bond with the zero coupon, the amount of coupon interest accrued but not paid on a bond of the given type is assumed being equal to zero.

35. The market price of a bond of a certain type out of bonds issued in accordance with the legislation of the Republic of Kazakhstan included in the Exchange's lists and being traded at the Exchange in "dirty" prices is calculated once a week as at 09.00 o'clock (Almaty time) of the first working day of the given week as follows:
- 1) for each one of the last ten working days preceding the first working day of the week in which valuation is done, orders for purchase of bonds of the given type are chosen, of which every single unit:
    - was submitted during a trading session conducted by the Exchange using the method of continuous counter auction;
    - was characterized by the volume of not less than 2,000 times of MCI in the nominal expression of the debt, and in case of availability of market-makers for the said bonds, – not less than the minimum size of mandatory quotation which was set for them as of the date of assigning such status to them;
    - was active for not less than 30 minutes and/or was a base for a transaction with the volume (transactions with the total volume) of not less than 2,000 times of MCI, and in case of availability of market-makers for the said bonds, – with the volume of not less than the minimum size of mandatory quotation which was set for them as of the date of assigning such status to them;
  - 2) for each one of the last ten working days preceding the first working day of the week in which valuation is done, out of orders selected according to sub-item 1) of this item, an order is chosen, according to which the "dirty" price of a bond of that type is the highest one;
  - 3) an arithmetic average of "dirty" prices of orders selected in accordance with sub-item 2) of this item is calculated leading to a "dirty" price which is used as a result of market valuation of a bond of the given type.
36. The market price of a bond of a certain type out of bonds issued in accordance with the legislation of a state other than the Republic of Kazakhstan (including bonds issued by a special enterprise, whose sole founder (partner, shareholder) is a legal entity of the Republic of Kazakhstan) included in the Exchange's lists and being traded at the Exchange in "net" prices is calculated daily as at 09.00 o'clock (Almaty time) of each working day as the sum of coupon interest accrued as of the date of valuation but not paid on the bond of that type (taking into account the peculiarity set by item 34 of this chapter) and its "net" price determined once a week as at 09.00 o'clock (Almaty time) of the first working day of that week as follows:
- 1) for each one of the last five working days preceding the first working day of the week in which valuation is being done, it is to calculate an arithmetic average of "net" prices of the best-priced quotations for sale and purchase of bonds of the given type registered in the Bloomberg agency's information system as of the moment of ending of each of the mentioned days;
  - 2) the "net" price of a bond of the given type is calculated as an arithmetic average of values determined in accordance with sub-item 1) of this item. However, if prices of a bond of that type mentioned in sub-item 1) of this item are fully or partially unavailable in the Bloomberg agency's information system, the "net" price of a bond of that type is defined in a way similar to that set by sub-items 1) – 3) of item 33 of this chapter.
37. The market price of a bond of a certain type out of bonds issued in accordance with the legislation of a state other than the Republic of Kazakhstan (including bonds issued by a special enterprise, whose sole founder (partner, shareholder) is a legal entity of the Republic of Kazakhstan) included in the Exchange's lists and being traded at the Exchange in "dirty" prices is calculated once a week as at 09.00 o'clock (Almaty time) of the first working day of the given week as follows:
- 1) for each one of the last five working days preceding the first working day of the week in which valuation is being done, it is to calculate an arithmetic average of "dirty" prices of the best-priced quotations for sale and purchase of bonds of the given type registered in the Bloomberg agency's information system as of the moment of ending of each of the mentioned days;

- 2) an arithmetic average of values is calculated, which were determined in accordance with sub-item 1) of this item, providing the "dirty" price which is used as a result of the market valuation of a bond of the given type. However, if prices of a bond of that type mentioned in sub-item 1) of this item are fully or partially unavailable in the Bloomberg agency's information system, the market price of a bond of that type is defined in a way similar to that set by item 34 of this chapter.
38. The market price of a bond of a certain type out of bonds issued in accordance with the legislation of a state other than the Republic of Kazakhstan (including bonds issued by a special enterprise, whose sole founder (partner, shareholder) is a legal entity of the Republic of Kazakhstan) not included in the Exchange's lists is calculated once a week as at 09.00 o'clock (Almaty time) of the first working day of the given week as an arithmetic average of "dirty" prices (and in their absence – that of "net" prices) of the best-priced quotations for sale and purchase of bonds of the given type registered in the Bloomberg agency's information system as of the moment of ending of the preceding working day.
39. For purposes indicated in sub-items 1) and 3) of the preamble of this Methodology, market prices of non-government emissive securities determined in accordance with items 30–38 of this chapter are subject to discounting, depending on their type:
- 1) shares – by 30 %;
  - 2) non-government bonds included in the "Rated Debt Securities" category of the Exchange's official list and rated<sup>5</sup> not lower than "BBB-" on the scale of agencies Standard&Poor's and/or Fitch and/or LLP "Rating Agency "KZ-rating", or not lower than "Baa3" on the scale of the agency Moody's, or not lower than "BBB3" on the scale of JSC "Rating Agency of the Regional Financial Centre of the City of Almaty", or not lower than "A+" on the scale of LLP "Rating Agency "Expert RA Kazakhstan" – by 10 %;
  - 3) non-government bonds included in the "Rated Debt Securities" category of the Exchange's official list and rated not lower than "BB-" on the scale of agencies Standard&Poor's and/or Fitch and/or LLP "Rating Agency "KZ-rating", or not lower than "Ba3" on the scale of the agency Moody's, or not lower than "BB3" on the scale of JSC "Rating Agency of the Regional Financial Centre of the City of Almaty", or not lower than "A" on the scale of LLP "Rating Agency "Expert RA Kazakhstan" – by 20 %;
  - 4) non-government bonds included in the "Rated Debt Securities" category of the Exchange's official list and rated not lower than the rank mentioned in sub-item 3) of this point, – by 30 %;
  - 5) non-government bonds without rating included in the first sub-category of the "Non-Rated Debt Securities" category of the Exchange's official list, – by 30 %.

#### **Chapter 4. SPECIAL AUTHORITIES OF THE COMMITTEE ON INDICES AND SECURITIES VALUATION**

*(This headline was changes by the Exchange Board of Directors decision of October 27, 2011).*

40. In situations, when the Committee on Indices and Securities Valuation (hereinafter – the Committee) deems that securities cannot be valued fairly in accordance with this Methodology due to poor representativeness of data necessary for the valuation, or when market prices of securities determined in accordance with this Methodology significantly differ from actual prices of transactions in securities and/or orders for conclusion of transactions in securities (due to emergence of force majeure, market-makers' refusal to fulfill their quotations maintenance obligations or due to other possible reasons), as well as in situations, when securities cannot be valued in accordance with this Methodology due to absence or lack of data necessary for the valuation, though there exists objective need of the market price for the Exchange with regard to given securities (e.g., in case of blocking of securities to the benefit of the Exchange by participants of trading it arranges, in the fulfillment of their obligations towards the Exchange or at opening in the repo market of trading in new instruments whereas given

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<sup>5</sup> Relating to this item, the highest rating from those of the mentioned rating agencies is taken into account.

securities emerge as subjects of relevant repo transactions), the Committee may (*this paragraph was changes by the Exchange Board of Directors decision of October 27, 2011*):

- 1) make extraordinary valuation of securities in accordance with this Methodology;
  - 2) change the list of parameters set by this Methodology for usage in securities valuation;
  - 3) independently make valuation of securities after deviating from or refusing the procedure of securities valuation set by this Methodology;
  - 4) take any other steps which, in the Committee's opinion, are necessary for fair valuation of securities.
41. Should the Committee avail itself of its special authorities set by item 40 of this Methodology, minutes of its meetings must reflect reasons for utilizing those authorities and actions undertaken in relation to those authorities.

President

K. Damitov