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|  | **APPROVED**by the Executive Board of Moscow Exchange2 October 2023, Minutes No.64Chairman of the Executive BoardMoscow Exchange\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Yu.O. Denisov |

**Calculation Methodology for**

**MOEX Extra Yield Bond index**

Moscow Exchange, 2023

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1. **General Provisions**
	1. Terms and Definitions

1.1.1. For the purposes of this Calculation Methodology for MOEX Extra Yield Bond index of Moscow Exchange (hereinafter, the “Methodology”), the following terms and definitions apply:

- *List of Constituents* means a list of Bonds used to calculate the Index as approved by the Exchange in the manner outlined in this Methodology.

- *Exchange, Moscow Exchange* means Public Joint-Stock Company Moscow Exchange MICEX-RTS.

- *Index Review Date* means 1 February, 1 May, 1 August and 1 November.

- *Maturity Date* means the date of maturity of the Bond issue or the nearest early redemption date of the Bond issue, if early redemption is stipulated by the issue documents.

- *Additional Indicators* are Weighted Average Return and Weighted Average Duration of the Index.

- *Investment Policy of the Management Company* means the policy for investments in securities and other financial instruments stipulated by the internal documents of the Management Company.

- *Total Return Index* means the Index calculated on the basis of the value of the Bonds, determined as the sum of the price and the Accumulated Coupon Income of the Bond, subject to coupon payments reinvestment.

- *Bonds* are corporate and exchange bonds issued by Russian corporate issuers and admitted to trading on the Exchange (except Eurobonds), including Increased Investment Risk Sector Bonds.

- *Rating Agencies* are Analytical Credit Rating Agency (ACRA), Rating Agency Expert RA (Expert RA), «National Credit Ratings (NCR), and National Rating Agency (NRA).

- *Key Rate* means the CBR key rate value as of the Index Review Date.

- *Credit Rating* means a credit rating under the national scale assigned to the issuer of Bonds assigned by a Russian rating agency.

- *Accumulated Coupon Income, ACI* means the earnings accumulated on the Bond in RUB.

- *Increase Investment Risk Sector Bonds* are the bonds of the Increased Investment Risk Sector.

- *Call Option* means the possibility of early redemption of the Bonds issue at the initiative of the Issuer.

- *Put Option, offer* means the possibility of early redemption of the Bonds issue at the initiative of the Bond holders.

- *Weighted Average Return of Index* means the weighted average return of Bond issues included in the Index Constituents.

- *Weighted Average Duration of Index* means the weighted average duration of Bond issues included in the Index Constituents.

- *Increased Investment Risk Sector* means total securities included in the Third Level of Moscow Exchange, which the Exchange has decided to admit to this Sector, including with the limitation of the list of acceptable trading modes for the purposes of mitigating risks of investors' financial losses from acquisition on the Exchange's trades of securities with uncertain investment risk, as well as securities previously included in the Uncertain Investment Risk Securities Sector;

- *Average Bond Yield* means the yield of Bond issue calculated as the average yields at weighted average price calculated for 10 working days preceding the date of Index Constituents review;

- *Term to Maturity* means the period to the maturity date of the Bond Issue or the date of the nearby offer or call option date;

-*Weight* share of the Bond issue value in the total value of all Bonds in the Constituents, expressed as a percentage;

- *Management Company* means Joint-stock company management company BrokerCreditService;

-*Price Index* means the Index computed based on Bond prices without Accumulated Coupon Income and coupon payments reinvestment factored in.

1.1.2. Terms and definitions used in this Methodology shall have the meanings ascribed to them in the internal documents of Moscow Exchange, Russian law, regulatory acts of the Bank of Russia and other regulations of the Russian Federation.

* 1. This Calculation Methodology for MOEX Extra Yield Bond index (hereinafter, the “Methodology”) establishes procedures for Moscow Exchange to calculate MOEX Extra Yield Bond index and select the Bonds based on trades used in calculating the Index and Additional Indicators.
	2. The Index calculated under this Methodology has the names and codes below:
* The Index’s name in Russian: «Индекс МосБиржи Облигаций повышенной доходности»;
* The Index's name in English: MOEX Extra Yield Bond index;
* The Total Income Index code: RUEYBCSTR
* The Price Index code: RUEYBCSCP.
	1. The wording “Индекс МосБиржи” in the Index name is a trademark of Moscow Exchange registered by the Federal Service for Intellectual Property in the Russian Public Register of Trademarks and Service Marks on 18 September 2017 (trademark certificate No. 630519). The wording “MOEX” in the Index name is a trademark of Moscow Exchange registered by the Federal Service for Intellectual Property in the Russian Public Register of Trademarks and Service Marks on 29 September 2014 (trademark certificate No. 521450).
	2. The Exchange shall approve this Methodology and any amendments and supplements thereto and they shall come into effect on the date determined by the Exchange. Amendments and supplements to this Methodology may be made once a quarter at latest.
	3. The approved text of this Methodology with any amendments and supplements thereto shall be disclosed on the official website of the Exchange on the Internet no later than three working days of its effective date unless otherwise is stipulated in the resolution of the Exchange.
1. **General Calculation Method**
	1. The Index is calculated on the basis of information about trades in Bonds which are executed on the Exchange. The Index and Additional Indicators are calculated every trading day after trading in the Main Trading Mode closes. The Exchange has the right to change the frequency of Index and Additional Indicators calculation.
	2. The Methodology sets out the following calculation method for the Index:
		1. The Price Index is calculated according to the following formula:

$$PI\_{n}=PI\_{n-1} ∙\frac{\sum\_{i=1}^{N}\frac{P\_{i,n}}{100}∙FV\_{i,n}∙ N\_{i,n}∙ W\_{i,n},}{\sum\_{i=1}^{N}\frac{P\_{i,n-1}}{100}∙FV\_{i,n-1}∙ N\_{i,n},∙ W\_{i,n}}$$

where:

PIn – the Price Index value at time n.

Pi,n – the average weighted price of the i-th Bond issue calculated at time n, in per cent of the par value.

FVi,n – the average par value of the i-th Bond issue calculated at time n, in RUB.

Ni,n – the volume of i-th Bond issue at time n, in securities units.

Wi,n – the coefficient limiting the share of capitalisation of the i-th Bond Issuer (“Weighting Factor”) is equal to 1, unless otherwise is provided in section 5 hereof.

* + 1. The Total Return Index is calculated according to the following formula:

$$CI\_{n}=CI\_{n-1} ∙\frac{\sum\_{i=1}^{N}(\frac{P\_{i,n}}{100}∙FV\_{i,n}+A\_{i,n}+G\_{i,n})∙ N\_{i,n}∙ W\_{i,n},}{\sum\_{i=1}^{N}(\frac{P\_{i,n-1}}{100}∙FV\_{i,n-1}+A\_{i,n-1})∙ N\_{i,n},∙ W\_{i,n}}$$

where:

CIn – the Total Return Index value at time n;

Pi,n – the average weighted price of the i-th Bond issue calculated at time n, in per cent of the par value;

Pi,n – the face value of the i-th Bond issue calculated at time n, in RUB;

Ai,n – the Accumulated Coupon Income on the i-th Bond issue calculated at time n, in RUB;

Gi,n – the Coupon Income paid on the i-th Bond issue at time n, in RUB;

Ni,n – the volume of i-th Bond issue at time n, in securities units;

Wi,n – the coefficient limiting the share of capitalisation of the i-th Issuer of Bond (the “Weighting Factor”) is equal to 1, unless otherwise is provided in section 5 of this Methodology.

* + 1. Additional Indicators are calculated using the formulae below:
			1. The Weighted Average Duration of the Index is calculated as follows:

$$D\_{n}=\frac{\sum\_{i=1}^{N}D\_{i,n}(\frac{P\_{i,n}}{100}∙FV\_{i,n}+A\_{i,n}+G\_{i,n})∙ N\_{i,n}∙ W\_{i,n},}{\sum\_{i=1}^{N}(\frac{P\_{i,n}}{100}∙FV\_{i,n}+A\_{i,n})∙ N\_{i,n},∙ W\_{i,n}}$$

where:

Dn – the Weighted Average Duration at time n.

Di,n – the Duration of the i-th Bond issue calculated at time n, in days.

Pi,n – the average weighted price of the i-th Bond issue calculated at time n, in per cent of the par value.

FVi,n – the average par value of the i-th Bond issue calculated at time n, in RUB.

Ai,n – the Accumulated Coupon Income of the Bond calculated at time n, in RUB.

Gi,n – the Coupon Income paid on the day n for the i-th Bond issue at time n, in RUB.

Ni,n – the volume of i-th Bond issue at time n, in securities units;

Wi,n – the coefficient limiting the share of capitalisation of the i-th Bond Issuer (“Weighting Factor”) is equal to 1, unless otherwise is provided in section 5 hereof.

* + - 1. The Weighted Average Return is calculated as follows:

$$Y\_{n}=\frac{\sum\_{i=1}^{N}Y\_{i,n}(\frac{P\_{i,n}}{100}∙FV\_{i,n}+A\_{i,n}+G\_{i,n})∙ N\_{i,n}∙ W\_{i,n},}{\sum\_{i=1}^{N}(\frac{P\_{i,n}}{100}∙FV\_{i,n}+A\_{i,n})∙ N\_{i,n},∙ W\_{i,n}}$$

where:

Y n – the Weighted Average Return at time n.

Yi,n – the Return of the i-th Bond issue calculated at time n in days.

Pi,n – the average weighted price of the i-th Bond issue calculated at time n, in per cent of the par value.

FVi,n – the average par value of the i-th Bond issue calculated at time n, in RUB.

Ai,n – the Accumulated Coupon Income of the Bond calculated at time n, in RUB.

Gi,n – the Coupon Income paid on the day n for the i-th Bond issue at time n, in RUB.

Ni,n – the volume of i-th Bond issue at time n, in securities units;

Wi,n – the coefficient limiting the share of capitalisation of the i-th Bond Issuer (“Weighting Factor”) is equal to 1, unless otherwise is provided in section 5 hereof.

* + 1. The Indices and the Weighted Average Return are calculated to two decimal places. The Weighted Average Duration is calculated to the nearest integer.
		2. Index inception date is 30/12/2019. Starting Index value is 100.
		3. If trading in a Bond issue included in the Index Constituents was suspended (stopped), the last value of the weighted average price of such Bond issue is to be used to calculate the Index until the trading is resumed or the Bond issue is removed from the Index Constituents.
1. **Index Construction Principles**
	1. The Bonds, which prices are used to calculate the Index, are eligible as Index Constituents if they comply with the following criteria:
		1. The Issuer has discharged its obligations to pay coupons, redeem the issue through the Offer, or redeem all Bond issues admitted to trading on the Exchange in full. If the Issuer has failed to meet all obligations arisen out of its technical default and/or a default of a Bond issue admitted to trading on the Exchange, the Bonds can be included in the Index Constituents provided that the Issuer discharges such failed due to technical default and/or default obligations with regard to all Bond issues admitted to trading on the Exchange and due and timely discloses the material event as required by the Bank of Russia’s regulatory acts.
		2. The Bond issue currency is RUB.
		3. The coupon rates under the Bond issue documents are defined for the whole duration till the Maturity Date.
		4. The Term to Maturity for Bonds (except the Increased Investment Risk Sector Bonds is at least one year, but three years a maximum.
		5. The Term to Maturity for the Increased Investment Risk Sector Bonds is at least one year.
		6. The Issuer of Bonds, except Increased Investment Risk Sector Bods, has a national rating at least BBB(RU)/ruBBB/BBB.RU/BBB|ru|, but not above A+(RU)/ruA+/A+.RU/A+|ru|. The maximum credit rating assigned by rating agencies counts in adding Bonds to the Index Constituents.
		7. The volume of Bond issue at par value, he Increased Investment Risk Sector Bonds inclusive, is at least RUB million.
		8. The trading volume for Bonds, including Increased Investment Risk Sector Bonds during the main session in the Main Trading Mode T+, as well as in the Negotiated Deals Mode, was not less than RUB 10 million.
		9. The average yield on the Bonds, including the Increased Investment Risk Sector Bonds, is not less than the sum of Key Rate and 2.75% but not greater than the sum of the Key Rate and 30%.
		10. The issue of Bonds meets requirements of the Management Company's Investment Policy.
	2. The Index Constituents may include maximum two bond issues of one Issuer, the Increased Investment Risk Sector bonds inclusive. If the number of the Issuer’s Bond issues meeting criteria of 3.1 hereof is more than two, the Exchange includes two Bond issues with the placement date closest to the Index Review Date.
	3. Index Constituents comprise bond issues of 27 issuers a minimum. If the number of issuers of Bonds included in the Index Constituents is less than 27, the Index Constituents may include Bonds that do not meet criteria of 3.1.3-3.1.12. hereof.
	4. The Exchange has the right to decide to include Bonds that do not comply with criteria in 3.1 hereof to the list of Index Constituents in a manner different from that outlined in 3.2 hereof.
2. **Index Review**
	1. The Bonds shall be included in or removed from the Index Constituents when the Index Constituents are reviewed in accordance with the Exchange’s decision.
	2. Normally, the list of Index Constituents is reviewed at most on a quarterly basis, unless otherwise is indicated in this Methodology. The reviewed Constituents shall come into effect upon commencement of the Main Trading Session on the first trading day of March, June, September and December. The Exchange may decide on other dates for the reviewed Index Constituents to come into effect.
	3. The Exchange is entitled to set a date for an extraordinary review of the Index Constituents in the following cases:

- upon exclusion of a Bonds issue from the list of securities admitted to trading on the Exchange (termination of Exchange trade in the corresponding Bond issue);

- in the event that the Bonds issuer is assigned with a Credit Rating that does not meet the requirements set forth in Appendix 1 hereto, the Exchange has the right to decide to exclude these Bonds from the Index Constituents of the corresponding Index on the date determined by the Exchange;

- if the Issuer of Bonds in the Index Constituents fails to meet coupon payment obligations, redeem the issue through the Offer, or redeem Bond issue(s) of the Issuer admitted to trading on the Exchange (default).

- in other cases which can have a material effect on Index calculation.

* + 1. If exclusion of Bonds from the Index Constituents results in the number of issuers, whose bonds are Constituents of the relevant Index, be less than 27, the Exchange is entitled to include other bonds as Index Constituents, at that the total number of issuers may not exceed 27.
		2. The new Weighting Factors for Bonds in the list of Index Constituents calculated using the information on Bonds as at the date preceding the date the new Index Constituents come into effect shall ally as of the date the Index Constituents have been reviewed.
		3. If trading in a Bond issue included in the Index Constituents list was suspended (stopped), the last value of the weighted average price of such issue is to be used to calculate the relevant Index until the trading is resumed or the Bond issue is removed from the Index Constituents.

1. **Limitation on the Share of Bond Value in the Indices**
	1. If the number of issuers in the list of Constituents for the relevant Index is at least 27, the maximum weight of the capitalisation of the Issuer's Bonds (total capitalisation of various Bond issues of the Issuer, if the Index Constituents include various Bond issues of the Issuer) in the total capitalisation of the Bond within such list of Constituents for the Index is limited to 4%(S=4%).
	2. If the relevant Index includes the Increased Investment Risk Sector Bonds, the maximum share of such Bonds in the aggregate capitalisation of the Bonds included in the Index Constituents is limited to 20% (K= 20%).
	3. The weight of the i-th Bond in the relevant Index is calculated as follows:

$$Wght\_{i}=\frac{MC\_{i}}{\sum\_{i=1}^{N}MC\_{i} }∙100\%,$$

where:

Wghti – the weight of i-th Bond.

MCi – the capitalisation of i-th Bond calculated using the formula:

$$MC\_{i}=(\frac{P\_{i}}{100}∙FV\_{i}+A\_{i})∙ N\_{i}∙ W\_{i}$$

N – total number of Bonds.

The weight of the Bonds of one Issuer is calculated as the sum of the Weights of the Bonds of all issues of the Issuer.

* 1. To meet the limits provided for in clauses 5.1 and 5.2 hereof, the Issuers' Weights shall be adjusted as follows:
		+ - * If the Weight of the Issuer in the Index Constituents of the relevant Index exceeds S value, then applicable Weight shall be deemed to be equal to S.
				* The difference between the Weights before and after the cap adjustment is prorated between the Issuers, whose Weights were not subjected to cap adjustment.
				* If the Weight of the Increased Investment Risk Sector Bonds in the Index Constituents exceeds K value, then the applicable Weight of the Increased Investment Risk Sector Bond Issuer shall be deemed to be equal to K value.
				* The difference between the Weights before and after the cap adjustment is prorated between the Issuers, whose Weights were not subjected to cap adjustment.
				* The above actions are repeated iteratively as long as there are Issuers whose Weights exceed the S value, and the Weight of the Credit Institutions Bonds exceeds the K value.
	2. Weighting Factors Wi vary from 0 to 1 with seven decimal places accuracy subject to mathematical rounding.
	3. If it is impossible to concurrently meet the limits provided for in clauses 5.1 and 5.2, the Issuer’s weight cap has priority.
	4. If the share of the Bonds issue value on the date of review of the Index Constituents does not meet the requirements of clauses 5.1, 5.2 hereof, the Exchange has the right to set the Bond issue volume Ni,t-1, used to calculate the Index in accordance with clause 2.2 hereof, so that the share of the Bonds issue value does not exceed the value established by clauses 5.1 and 5.2.
1. **Index Calculation Control**
	1. If any technical failure occurs, specifically in Index calculation or in the course of trading in securities on the Exchange, which corrupts data used for Index calculation, the Index values may be recalculated. Such recalculation is carried out within the shortest possible time from the moment the technical failure has been detected. Information on the Index values as recalculated is published on the Exchange’s website.
	2. In the event of circumstances which can have a negative effect on the adequacy of the Index reflecting the actual state of the Russian bond market, the Exchange may take any actions to ensure adequacy of the Index, e.g. remove Bonds from Index Constituents etc.
2. **Information Disclosure**
	1. The Exchange discloses the Index values and additional metrics for the previous trading day every trading day no later than 12:00 MSK.
	2. Announcements on the Index Constituents periodic review are posted within three working days as from the date of Exchanges resolution on approval of new Index Constituents, but no later than one week prior to the day on which such resolution becomes effective.
	3. Announcements on extraordinary reviews of Index Constituents are posted no later than on the day preceding the effective day of the Exchange's resolution on approval of new Index Constituents.
	4. The Information to be disclosed under this Methodology is posted on the official website of the Exchange. Such information may also be disseminated in other ways, specifically through information agencies distributing data about on-Exchange trading in Securities.