

## TECHNICAL DESCRIPTION

### PRE-TRADE RISK CHECKS ON THE DERIVATIVES MARKET FOR SPONSORED MARKET ACCESS (SMA) ON THE MOSCOW EXCHANGE

#### 1. Description of risk checks

Pre trade risk checks may be set individually for each SMA\_ID. Instructions (and orders) submitted via a specified SMA\_ID, are checked by the following criteria set on the relevant SMA\_ID:

	Risk check parameter	Set at level:	Set via:
1.	Deviation of price level from current market price	SMA_ID and/or SMA_ID – Instrument	Cgate, Spectra Terminal
2.	Maximum volume of order (in number of lots or in Roubles)		
3.	Maximum sum of orders in a single trading day (in Roubles)		
4.	Maximum position long or short (in lots)	SMA_ID and/or SMA_ID – Instrument – trade account	
5.	Block negotiated trades	SMA_ID	

##### 1.1 Deviation of price level from current market price

- For SMA\_ID and/or SMA\_ID –instrument, a parameter is set, specifying the maximum deviation from the current market price as a percentage up or down, with an accuracy of up to 2 decimal places. If the price in the order exceeds this parameter then the order is rejected by the trading system. If the parameter is set simultaneously on the level of SMA\_ID and SMA\_ID – instrument, then the order will be rejected if it exceeds the minimum of the two.
- The market price is taken as the central price of the order book. If the order book is empty or has orders only in one direction, the last settlement price is used.
- The parameter for maximum deviation up and down is set at a value greater than or equal to 0%, and less than 100%.
- Instruments also have price corridors in the trading system, which are set by the risk department of the NCC and are not related to SMA pre trade controls.

##### 1.2 Maximum volume of order (in number of lots or in Roubles)

- For SMA\_ID and/or SMA\_ID – instrument, a parameter is set specifying the maximum volume of securities in a single order (specified in lots or in Roubles). If the volume of the order exceeds the parameter the order is rejected by the order processing system. If parameters are set in both SMA\_ID and SMA\_ID – SECID then the order will be rejected if it exceeds the minimum of the two.
- If the volume of the order is in a foreign currency (and if settlements occur in a foreign currency), then the volume of the order is calculated in Roubles according to the current

indicative currency rate (<https://www.moex.com/ru/derivatives/currency-rate.aspx>) to 5 decimal places.

- Commission is not included.
- The parameter for maximum volume may be set to 0. In that case the SMA\_ID will not be able to submit orders.
- The parameter must be a non-negative integer.

### **1.3 Maximum sum of orders in a single trading day (in Roubles)**

- For SMA\_ID and/or SMA\_ID – instrument a parameter is set, specifying the maximum sum volume of orders in Roubles on buys and sells, from the moment the parameter is set. If the parameter is exceeded, the order will be rejected.
- If the parameter is set at the level of SMA\_ID, then it will apply to the cumulative sum of all orders submitted in all trading modes.
- If the parameter is set at the level of SMA\_ID - instrument, then it will apply to the cumulative sum of all orders submitted in all trading modes with the specified instrument.
- If the parameter is set simultaneously on the level of SMA\_ID and SMA\_ID – instrument, then the order will be rejected if it exceeds the minimum of the two.
- If the volume of the order is in a foreign currency (and if settlements occur in a foreign currency), then the volume of the order is calculated in Roubles according to the current indicative currency rate (<https://www.moex.com/ru/derivatives/currency-rate.aspx>) to 5 decimal places.
- When the risk check is removed/deleted, the cumulative counter is reset. If the parameter is set again, then the counter begins from 0.
- If the risk check is removed/deleted for a specific SMA\_ID – instrument, then the counter is reset for that instrument.
- All orders temporarily increase the counter, apart from Cancel order. After the order cycle is completed, the order is either accepted or rejected. If the order is rejected, then the counter will go back to its original sum.
- Cancel orders do not decrease the counter.
- The sum is reset at the start of the trading session.
- Upon a system reset, the sum of the counter is not reset, and is reinstated at the previous level.
- The parameter must be a non-negative integer.

### **1.4 Maximum position long or short (in lots)**

- A parameter is set at the level of SMA\_ID – instrument – trade account, which set the maximum long position and/or short position for a specific instrument in lots, opened in a single trading day. That is, a cumulative counter for all long contracts, and a cumulative counter for all short contracts.

The following are defined:

Pos<sup>net</sup>: Current position (including positions from previous trading sessions)

Order<sup>buy</sup>: A trade order to buy  
 Order<sup>sell</sup>: A trade order to sell  
 Limit<sup>long</sup>: The set parameter for maximum long position  
 Limit<sup>short</sup>: The set parameter for maximum short position

Each trade order is checked. If  
 $\text{abs}(\text{Pos}^{\text{net}} + \text{Order}^{\text{buy}}) > \text{Limit}^{\text{long}}$   
 or  
 $\text{abs}(\text{Pos}^{\text{net}} + \text{Order}^{\text{sell}}) > \text{Limit}^{\text{short}}$

Then only orders which reduce the position are allowed. All other orders are rejected. If the positions has reached both the long and the short limit, then the SMA\_ID must either adjust the limits or remove the orders, or it will not be able to trade.

- Positions are recorded in the trading system on the level of trade account – underlying asset – {futures, calendar spread, option}
- CALL options are treated as longs and PUT options are treated as shorts.
- If the parameter is set simultaneously on the level of SMA\_ID and SMA\_ID – instrument, then the order will be checked against both limits.
- Orders are aggregated on trade accounts without reference to which login traded, however rejects based on the SMA pre trade risk control functionality will only apply to orders sent from the SMA\_ID. If the pre trade risk check is exceeded by transactions sent by another non SMA\_ID login, then the SMA\_ID login will only be able to send orders that close positions.
- Cancel orders reduce the relevant counter for the long or short position by the specified volume.
- The risk check must be set as a non-negative integer.

### 1.5 Block negotiated trades

- A parameter yes/no is set at the level of SMA\_ID which allows or restricts negotiated trades and deals.

## 2. Setting, removing and changing pre-trade risk parameters

SMA pre trade risk controls can be set via the following methods:

1. Sending instructions through gateway protocols.

Description of the gateway protocol commands can be found in the public domain via the following link: [http://ftp.moex.com/pub/ClientsAPI/Spectra/CGate/prod/docs/p2gate\\_en.pdf](http://ftp.moex.com/pub/ClientsAPI/Spectra/CGate/prod/docs/p2gate_en.pdf)

Settings for SMA login pre trade risk controls  
 4.15.1.22, table «sma\_pre\_trade\_check»

Applying SMA login pre trade risk controls  
 5.26, table «Method SetSmaPreTradeCheck»

Deleting SMA login pre trade risk controls  
 5.27, table «Method SetSmaPreTradeCheck»

2. Through the Spectra trading terminal.

Upon setting risk check parameters 1 and 2, the parameters come into force immediately.

The parameters are saved in the system and automatically apply in consequent trading sessions, and after a reset of the trading system.

## 2.1 Permissions on changing risk parameters

- Logins with special permissions are allowed to set SMA pre trade risk controls. Only plaza 2 logins can have these permissions. The permissions are set by the Tech-Access department of the Moscow Exchange by way of receiving a filled application from the trading member.
- If the permission is set on a login at the Broker Firm level, then the login is able to set SMA pre trade risk controls for all logins, associated with that Broker Firm.
- If the permission is set on a login at the Firm level, then the login is able to set SMA pre trade risk controls for all logins, associated with that Firm.
- A trading member is able to grant an SMA login with the permissions by sending the Exchange a filled application 'permissions on setting pre trade risk controls'

## 2.2 Viewing and setting SMA pre trade risk controls through non trading instructions

- In the Plaza 2 gateway there are new tables with parameters of SMA pre trade risk controls. A login has the permission to receive the data of these parameters from the gateway only if it has the relevant permissions described in 2.1.
- It is possible to change the parameters through non trading commands. To do this the login must have the permissions described in 2.1.
- Changing the SMA pre trade risk controls is only available through the protocol Cgate.

## 2.3 Viewing and setting SMA pre trade risk controls through the trading terminal

- It is possible to set and change SMA pre trade risk controls through the trading terminal Spectra, using commands in the Plaza 2 gateway. In order to execute these changes the user must have the correct permissions, as described in 2.1.

