

**BULGARIAN
STOCK
EXCHANGE-SOFIA**



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SOFIA

**DESCRIPTION OF THE MIXED CLOSED
AUCTION**

1. Privatization market

The RTS trading platform of BSE supports several special auctions to facilitate the sale of residual stakes of the Bulgarian government in public companies. The privatization body, via an authorized investment intermediary, is the only seller of the government stake, where buyers can be all member firms.

The Board of Directors of the Exchange has adopted the closed mixed auction as a permissible auction in the process of privatization of public companies.

2. Buy orders allowed by the closed mixed auction.

The trading platform allows the entry of limit and market orders.

The limit order is a buy order at a given limit price or better. The market order assumes execution at the best possible market price.

The parameters of all buy orders are:

- Number of securities (for limit orders) or total amount in Bulgarian levs (BGN) of the trade (for market orders); that is, the market order defines only the maximum amount of money, that the participant is willing to pay.
- Maximum price (limit price) for limit orders.

The priorities of all limit orders are, as follows:

Price;

Time of entry;

And time of entry only for the market orders.

The closed mixed auction passes through the following stages:

3.1 Announcement of the date of the auction, the number of securities offered for sale and the minimum auction price.

3.2. Entry of buy orders into the trading platform.

Each participant may enter unlimited number of limit orders in the trading platform, and these may be executed partially. Each participant may also enter market orders. Since the auction is a closed one, each participant has only access to his or her orders, and not to those entered by the others. Each participant may amend the parameters of their orders.

3.3 End of the buy orders entry process.

3.4. Announcement of the price of the limit sell order by the seller (cut price) and conduct of an auction, during which the trades are executed.

The seller announces the cut price (the limit price of the sell order) which is equal to one of the prices of the buy orders. All orders that have lower prices are excluded from the auction. Thus, the

announcement of the cut price defines the number of orders that may result in trades.

3.5 Finalization of the trades.

3.5.1 The total volume of the limit orders having a maximum price plus the market orders that can be executed at the maximum price exceeds the volume of securities offered for sale.

In this case, the platform allows only the highest price of the limit buy orders as a cut price, which aims at ensuring maximum profit for the seller.

Example 1. There are 100,000 shares of the company “X” offered for sale, where the minimum price per share is BGN 1 (The platform does not allow entry of orders below that price). The participants in the mixed auction have entered the following buy orders:

Order No.	Type	Volume	Price	Total amount (BGN)
15015	Limit	10,000	5.00	50,000
15016	Limit	20,000	5.00	100,000
15017	Limit	15,000	5.00	75,000
15018	Limit	20,000	4.50	90,000
15019	Limit	20,000	3.50	70,000
15020	Limit	20,000	3.00	60,000
15021	Market	-	-	100,000
15022	Market	-	-	50,000
15023	Market	-	-	100,000
15024	Market	-	-	50,000

The total volume of the limit orders having a maximum price is 45,000 shares (10,000+20,000+15,000). The total volume of the market orders if they are executed at the maximum price of BGN 5.00 is 60,000 shares ($(100,000 + 50,000 + 100,000 + 50,000)/5$). In such case, the total volume of the limit orders having a maximum price plus the market orders executed at this price is 105,000 shares. The platform will allow only BGN 5.00 as a cut price in order to guarantee maximum profit for the seller. The resulting trades will be, as follows:

Order No.	Type	Number of securities	Price	Total amount of the order	Trade volume	Trade price	Total amount of the trade
15015	Limit	10,000	5.00	50,000	10,000	5.00	50,000
15016	Limit	20,000	5.00	100,000	20,000	5.00	100,000
15017	Limit	15,000	5.00	75,000	15,000	5.00	75,000
15021	Market	-	-	100,000	20,000	5.00	100,000
15022	Market	-	-	50,000	10,000	5.00	50,000
15023	Market	-	-	100,000	20,000	5.00	100,000
15024	Market	-	-	50,000	5,000	5.00	25,000

Orders 15018, 15019 and 15020 will not be satisfied because their prices are lower than the cut price. Order 15024 has been entered last; therefore, it has the lowest priority. The total volume of the supply is 100,000 shares, and the total volume of the buy orders executed at the maximum price (BGN 5.00) is 105,000 shares. Therefore, order 15024 will be executed partially.

Following the end of the auction, there will be no securities left unsold.

The algorithm for execution of buy orders described in the above example is only valid in the case where the total volume of limited orders at the maximum price plus the volume of market orders that may be executed at the maximum price, exceeds the volume of the shares offered. Otherwise, the execution of buy orders algorithm described below shall apply.

3.5.2 The total volume of limited orders at the maximum price plus the volume of market orders that may be executed at the maximum price, DOES NOT exceed the volume of shares offered for sale.

The steps where determining the admissible cut prices are, as follows:

1. All limit buy orders are sorted in downward order by price, and then - in upward order by time of entry;
2. The price of the highest order is taken;
3. The sum of the total volume of limit orders having a price that is not lower than that under item 2 above, and the volume of securities that may be purchased under market orders, is calculated. The volume that may be purchased under market orders shall be calculated as the total value of the market orders is divided by the price of the limit order under item 2 above.
4. Where the thus calculated sum under item 3 above exceeds the total volume of securities that are subject-matter of the offering, then the price under item 2 above shall be marked by the System as an inadmissible cut price.
5. Where the sum calculated under item 3 above does not exceed the total volume of securities that subject-matter of the offering, then the price under item 2 above shall be marked by the System as an admissible cut price.
6. Then, it is proceeded to the next highest price of the limit buy orders, and the algorithm described above is repeated until all are exhausted.

All limited orders at prices not less than the cut price, will be executed at their own price, and the market orders will be executed at the weighted average price of the accepted limited orders.

The shares which are not sold at the end of the auction remain for the next trading day.

Example 2: There are 100,000 shares of the company “X” offered for sale, where the minimum price per share is BGN 1. The participants in the mixed auction have entered the following buy orders:

<i>Order No.</i>	<i>Type</i>	<i>Volume</i>	<i>Price</i>	<i>Total value (BGN)</i>
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15053	Limit	10,000	5.00	50,000
15054	Limit	15,000	5.00	75,000
15055	Limit	20,000	4.50	90,000
15056	Limit	20,000	4.00	80,000
15057	Market	-	-	50,000
15058	Market	-	-	50,000

The total demand at whatever price does not exceed the volume of shares offered. That is why all prices /BGN 4.00, 4.50 and 5.00/ are suitable for a cut price.

The Board of Directors of the Exchange has adopted a rule which states that the cut price should be always the lowest one of all possible, which in this case is BGN 4.00. All buy orders will be accomplished:

<i>Order No</i>	<i>Type</i>	<i>Number of securities</i>	<i>Price</i>	<i>Total amount of the order</i>	<i>Trade volume</i>	<i>Trade price</i>	<i>Total amount of the trade</i>
15053	Limit	10,000	5.00	50,000	10,000	5.00	50,000
15054	Limit	15,000	5.00	75,000	15,000	5.00	75,000
15055	Limit	20,000	4.50	90,000	20,000	4.50	90,000
15056	Limit	20,000	4.00	80,000	20,000	4.00	80,000
15057	Market	-	-	50,000	11,013	4.54	49,999.02
15058	Market	-	-	50,000	11,013	4.54	49,999.02

The price of BGN 4.54, at which the market orders are executed, is the weighted average price of the executed limited orders.

N.B.: as it may be seen in Step 3 described above, where determining the cut price, the total volume of the market orders is juxtaposed towards each of the potential cut prices. Notwithstanding the foregoing, where proceeding with execution, market orders shall be satisfied by the average weighted price of the limit orders.

Example 3: There are 100,000 shares of the company “X” offered for sale, where the minimum price per share is BGN 1. The participants in the mixed auction have entered the following buy orders:

<i>Order No.</i>	<i>Type</i>	<i>Volume</i>	<i>Price</i>	<i>Total value (BGN)</i>
15053	Limit	10,000	5.00	50,000
15054	Limit	15,000	5.00	75,000
15055	Limit	20,000	4.50	90,000

15056	Limit	70,000	4.00	280,000
15057	Market	-	-	50,000
15058	Market	-	-	50,000

The total demand at BGN 4.00 exceeds the volume of shares offered. That is why only 4.50 and 5.00 will be suitable for a cut price. According to the rule adopted by the Board of Directors, the cut price will be BGN 4.00 and the following trades will be executed:

<i>Order No.</i>	<i>Type</i>	<i>Number of securities</i>	<i>Price</i>	<i>Total amount of the order</i>	<i>Trade volume</i>	<i>Trade price</i>	<i>Total amount of the trade</i>
15053	Limit	10,000	5.00	50,000	10,000	5.00	50,000
15054	Limit	15,000	5.00	75,000	15,000	5.00	75,000
15055	Limit	20,000	4.50	90,000	20,000	4.50	90,000
15057	Market	-	-	50,000	10,460	4.78	49,998.80
15058	Market	-	-	50,000	10,460	4.78	49,998.80

The price of BGN 4.78, at which the market orders are executed, is the weighted average of the limit orders executed.
