

## 1. Privatization Market

The Trading System of the BSE-Sofia allows the organizing of special auctions for sale of State-owned stakes in public companies. The privatizing body, via an investment intermediary approved by the body, appears to be the only seller of the respective stake while all Exchange Members could act as buyers.

At its meeting the Board of Directors of the BSE-Sofia has adopted the Closed Mixed Auction for sale of State-owned stakes in public companies.

## 2. Bid orders in terms of a Closed Mixed Auction

The System will allow entering of both limit and market orders.

Limit order is an order for buying at a specified limit price or at a better one.

Market order assures execution at the best available market price.

Basic parameters of the bid orders:

- Number of securities (for limit orders) or transaction value (for market orders) i.e. **market order defines only the highest value, which the participant is ready to pay**
- Highest quotation (limit price) for the limit orders.

Priorities of limit orders are:

1. Price
2. Time of entering,

While when market orders concerned – only time of entering.

## 3. Stages of the Closed Mixed Auction:

### 3.1. Announcement of the date for auction performance, number of securities offered for sale as well as minimum sell price

### 3.2. Entering of bid orders by participants

Every participant will be entitled to enter into the Trading System unlimited number of limit orders allowing partial fulfillment as well as market orders. In terms of a closed auction, every participant could see and alter only his own orders but not the ones entered by the other participants.

### 3.3. Termination of the process of bid order entering

### 3.4. Announcement of the price of the limit order for sale (cut price) by the seller and performance of an auction, during which transactions will be executed.

The seller will announce the cut price (the price of the limit order for sale), which will equal anyone of the prices of the limit orders for buying. Bid orders at lower prices will be excluded from the auction. Thus the announcement of the cut price will determine the number of limit orders to participate in the auction.

### 3.5. Transactions

#### 3.5.1. The total volume of the limit orders at the highest price plus the volume of the market orders, which could be fulfilled at the highest price, surmounts the volume of securities offered for sale

In such case, the System will select as a cut price (price of the order for sale) only the highest price of the limit orders for buying so to ensure maximum benefit to the seller of securities.

*Case 1:* There are 100,000 shares of company X offered for sale whereas the minimum price is BGN 1.00 per share (the System does not admit entering of orders below that price).

The participants in the auction have entered the following bid orders (the higher in the table placed, the higher priority), all of which are partially executable:

Order No	Type	Amount (number)	Price	Total value (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 at the highest price amounts to 45,000 shares (10,000+20,000+15,000). The total volume of the market orders, if they are executed at the highest price of BGN 5.00, is 60,000 shares ([100,000+50,000+100,000+50,000]/5). In this case, the total volume of the limit orders at the highest price and the market orders executable at that price will be 105,000 shares. The System, independently of the auction, will admit only entering of a cut price of BGN 5.00 aiming at the best benefit for the seller. So the following transactions will be executed at the price of BGN 5.00:

Order No	Type of order	Amount of order (number)	Price of order (BGN)	Total value of order (BGN)	Amount of transaction (number)	Price of transaction (BGN)	Total value of transaction (BGN)
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 No 15018, 15019 and 15020 will not be fulfilled because their prices are lower than the cut price. Order No 15024 is the last one entered, so its priority is the lowest. Provided the volume offered for sale has been 100,000 shares but the total volume of the bid orders executable at the cut price of BGN 5.00 amounts to 105,000 shares, order No 15024 will be partially fulfilled.

No securities will remain unsold after the end of the auction.

**The algorithm for fulfillment of bid orders described above will be enforced ONLY IF the total volume of the limit orders at the highest price plus the volume of the market orders executable at this highest price, surmounts the volume of securities offered for sale. Otherwise, the algorithm for order fulfillment described below will be applied.**

**3.5.2. The total volume of the limit orders at the highest price plus the volume of the market orders, which could be fulfilled at the highest price, DOES NOT surmount the volume of securities offered for sale**

Steps for determination of admissible cut prices:

1. Sorting of all limit bid orders first by price descending and then by time of entering ascending
2. Selection of the price of the highest ranked order
3. Calculation of the sum of the total amount of the limit bid orders at a price not lower than the price as of item 2 and the amount of securities, which could be bought through market orders. The amount of securities, which could be bought through market orders, is calculated by dividing of the total value of the market orders by the price of the limit order as of item 2
4. If the sum calculated as of item 3 surmounts the total amount of securities offered for sale, then the price as of item 2 will be marked by the System as inadmissible cut price
5. If the sum calculated as of item 3 does not surmount the total amount of securities offered for sale, then the price as of item 2 will be marked by the System as admissible cut price
6. Selection of the price of the next highest ranked limit order and the algorithm described is consequently repeated until exhaustion of all orders

All limit orders at a price not lower than the cut price are respectfully fulfilled at the price defined in each of them, while the market orders are fulfilled at the average-weighted price of all limit orders fulfilled.

Securities remained unsold after the end of the auction will be transferred for the next day.

**Case 2:** There are 100,000 shares of company X offered for sale whereas the minimum price is BGN 1.00 per share. The participants in the auction have entered the following bid orders:

Order No	Type	Amount (number)	Price	Total value (BGN)
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 amount of demand does not surmount the supply, whatever the price is:

If the price is BGN 4.00, the demand will be  $10,000 + 15,000 + 20,000 + 20,000 + (50,000/\text{BGN } 4.00) + (50,000/\text{BGN } 4.00) = 90,000$  shares

If the price is BGN 4.50, the demand will be  $10,000 + 15,000 + 20,000 + (50,000/\text{BGN } 4.50) + (50,000/\text{BGN } 4.50) = 67,222$  shares

If the price is BGN 5.00, the demand will be  $10,000 + 15,000 + (50,000/\text{BGN } 5.00) + (50,000/\text{BGN } 5.00) = 45,000$  shares

So all possible cut prices: BGN 4.00, BGN 4.50 and BGN 5.00, will be admissible.

The Board of Directors of the BSE-Sofia has adopted the rule for selection of the lowest one of all admissible cut prices. In this case it is BGN 4.00. The selection of this cut price will lead to execution of the following transactions:

Order No	Type of order	Amount of order (number)	Price of order (BGN)	Total value of order (BGN)	Amount of transaction (number)	Price of transaction (BGN)	Total value of transaction (BGN)
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 have been fulfilled, is the average-weighted price of all limit orders fulfilled.

**Case 3:** There are 100,000 shares of company X offered for sale whereas the minimum price is BGN 1.00 per share. The participants in the auction have entered the following bid orders:

Order No	Type	Amount (number)	Price	Total value (BGN)
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

If the price is BGN 4.00, the total amount of demand will surmount the supply.

If the price is BGN 4.00, the demand will be  $10,000 + 15,000 + 20,000 + 70,000 + (50,000/\text{BGN } 4.00) + (50,000/\text{BGN } 4.00) = 140,000$  shares

If the price is BGN 4.50, the demand will be  $10,000 + 15,000 + 20,000 + (50,000/\text{BGN } 4.50) + (50,000/\text{BGN } 4.50) = 67,222$  shares

If the price is BGN 5.00, the demand will be  $10,000 + 15,000 + (50,000/\text{BGN } 5.00) + (50,000/\text{BGN } 5.00) = 45,000$  shares

So, BGN 4.50 and BGN 5.00 will be the admissible cut prices.

In compliance with the rule for selection of the lowest one of all admissible cut prices, the price of order No 15055 (BGN 4.50) will be selected as a cut price. The selection will lead to execution of the following transactions:

Order No	Type of order	Amount of order (number)	Price of order (BGN)	Total value of order (BGN)	Amount of transaction (number)	Price of transaction (BGN)	Total value of transaction (BGN)
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 have been fulfilled, is the average-weighted price of all limit orders fulfilled.