Annexure – Illustrations on Market price order enhancements

Trading members are requested to note that the examples provided below for various scenarios are representative and meant for conceptual understanding purpose only. Order prices and MPI parameters given in the examples are not specific to any product or market segment.

Scenario 1:
Market order shall not be allowed in a contract which has no last traded price for day as it has not traded yet.

For Example:

LTP	Not Available
Previous close price	Rs.99.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20%

Exchange defined MPI will be used since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
100	99.00
200	98.00
300	97.00
150	96.00
350	95.00

SELL QTY	SELL LIMIT PRICE
50	105.00
70	110.00
60	115.00
40	120.00
20	125.00

Now, a buy/sell market order is placed for 700 quantity. The Market order will get rejected by the Exchange with error as "SECURITY NOT TRADED. MARKET ORDER NOT ALLOWED".

Scenario 2:
Market order shall be allowed to be traded up to MPI price range, i.e. X% higher/lower than Last traded Price (LTP).

2a. Buy market order shall be allowed to trade up to X% higher than LTP.

For Example:

LTP	Rs.102.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20% (i.e. Rs.122.40)

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	99.00		10	105.00
20	98.00		30	110.00
30	97.00		20	115.00
15	96.00		40	120.00
35	95.00		10	122.00

Now, a buy market order is placed for 100 quantity. The market order will be executed within the MPI range.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	99.00		10	122.00
20	98.00			
30	97.00			
15	96.00			
35	95.00			

2b. Sell market order shall be allowed to trade up to X% lower than LTP

For Example:

LTP	Rs.102.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20% (i.e. Rs.81.60)

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	92.00		10	105.00
20	90.00		30	110.00
30	85.00		20	115.00
15	83.00		40	120.00
35	82.00		10	122.00

Now, a Sell market order is placed for 70 quantity. The market order will be executed within the MPI range.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
5	83.00
35	82.00

SELL QTY	SELL LIMIT PRICE
10	105.00
30	110.00
20	115.00
40	120.00
10	122

Illustration of MPI % that shall be applicable in different cases as explained in scenarios 3,4 and 5 below:

Exchange Defined MPI %	Member/Trader Defined MPI %	Applicable MPI %	
20%	Not defined	20%	Subject to Minimum Absolute Value of Rs.10
20%	10%	10%	-
20%	25%	20%	-
20%	0%	0%	-

Scenario 3:

This price range of X% higher/ lower than LTP, shall also be subject to minimum absolute value in rupee terms.

3a. Buy market order shall be allowed to trade up to X% higher than LTP subject to minimum absolute value in rupee terms.

For Example:

LTP	Rs.40.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20% (i.e. Rs.48.00)
Minimum absolute value in Rs.	Rs.10.00 (i.e. Rs.50.00)

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	38.00
20	37.50
30	37.00
15	36.60
35	36.00

SELL QTY	SELL LIMIT PRICE
10	45.00
30	46.00
20	47.50
40	48.60
20	49.00

Now, a buy market order is placed for 110 quantity. The market order will be executed within the MPI range considering the minimum absolute value Rs.10.00.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	38.00		10	49.00
20	37.50			
30	37.00			
15	36.60			
35	36.00			

3b. Sell market order shall be allowed to trade up to X% lower than LTP subject to minimum absolute value in rupee terms.

For Example:

LTP	Rs.40.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20% (i.e. Rs.32.00)
Minimum absolute value in Rs.	Rs.10.00 (i.e. Rs.30.00)

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	36.00		10	45.00
20	35.00		30	46.00
30	33.00		20	47.50
15	32.50		40	48.60
45	31.00		20	49.00

Now, a Sell market order is placed for 110 quantity. The market order will be executed within the MPI range considering the minimum absolute value Rs.10.00.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	31.00		10	45.00
			30	46.00
			20	47.50
			40	48.60
			20	49.00

Scenario 4:

Members/traders can also define MPI% for every market price order.

Amongst the Members/trader defined MPI% and Exchange-defined MPI%, lower MPI% shall be considered during order matching, irrespective of minimum absolute value.

4a. Buy market order shall be allowed to trade up to X% higher than LTP.

<u>For Example:</u>

LTP	Rs. 40.00
Member/Trader defined MPI%	10% (i.e. Rs.44.00)
Exchange defined MPI%	20% (i.e. Rs.48.00)
Minimum absolute value in Rs.	Rs.10.00

Minimum of member/trader defined MPI % and exchange defined MPI % shall be applicable.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	38.00
20	37.50
30	37.00
15	36.60
35	36.00

SELL QTY	SELL LIMIT PRICE
10	41.00
30	42.00
20	43.00
40	44.00
20	45.00

Now, a buy market order is placed for 110 quantity. The market order will be executed within the MPI range considering the Member/Trader defined MPI%.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
10	38.00
20	37.50
30	37.00
15	36.60
35	36.00

SELL QTY	SELL LIMIT PRICE
20	45.00

The market order will be executed within the MPI range. if the market order gets partially executed the remaining 10 quantity of the incoming market price order shall be cancelled.

4b. Sell market order shall be allowed to trade up to X% lower than LTP.

For Example:

LTP	Rs.40.00
Member/Trader defined MPI%	10% (i.e. Rs.36.00)
Exchange defined MPI%	20% (i.e. Rs.32.00)
Minimum absolute value in Rs.	Rs.10.00

Minimum of member/trader defined MPI % and Exchange defined MPI % shall be applicable.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	39.00
20	38.00
30	37.00
15	36.00
45	34.00

SELL QTY	SELL LIMIT PRICE
10	45.00
30	46.00
20	47.50
40	48.60
20	49.00

Now, a Sell market order is placed for 110 quantity. The market order will be executed within the MPI range considering the Member/Trader defined MPI%.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
45	34.00

SELL QTY	SELL LIMIT PRICE
10	45.00
30	46.00
20	47.50
40	48.60
20	49.00

The market order will be executed within the MPI range. if the market order gets partially executed the remaining 35 quantity of the incoming market price order shall be cancelled.

Scenario 5:
If price of opposite side order is beyond the MPI price range, then the entire incoming market price order (or remaining order quantity if it is partially executed) shall be cancelled.

5a. Buy market order shall be cancelled if opposite side orders are beyond the MPI price range.
For Example:

LTP	Rs.100.00
Member/Trader defined MPI%	25% (i.e. Rs.125.0)
Exchange defined MPI%	20% (i.e. Rs.120.0)
Minimum absolute value in Rs.	Rs.10.00

Minimum of member/trader defined MPI % and exchange defined MPI % shall be applicable.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	108.00
20	107.00
30	106.05
15	106.00
35	105.00

SELL QTY	SELL LIMIT PRICE
10	120.05
30	122.00
20	122.45
40	122.55
20	123.00

Now, a buy market order is placed for 100 quantity. The market order will be executed within the MPI range. if opposite side orders are beyond the MPI price range, then entire Buy market order of 100 quantity shall be cancelled.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
10	108.00
20	107.00
30	106.05
15	106.00
35	105.00

SELL QTY	SELL LIMIT PRICE
10	120.05
30	122.00
20	122.45
40	122.55
20	123.00

5b. Sell market order shall be cancelled if opposite side orders are beyond the MPI price range.
For Example:

LTP	Rs.100.00
Member/Trader defined MPI%	25% (i.e. Rs.75.0)
Exchange defined MPI%	20% (i.e. Rs.80.0)
Minimum absolute value in Rs.	Rs.10.00

Minimum of member/trader defined MPI % and exchange defined MPI % shall be applicable.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	76.15
20	76.25
30	77.35
15	78.55
35	79.45

SELL QTY	SELL LIMIT PRICE
10	85.00
30	84.00
20	86.25
40	86.45
20	87.00

Now, a Sell market order is placed for 100 quantity. The market order will be executed within the MPI range. if opposite side orders are beyond the MPI price range, then entire Sell market order of 100 quantity shall be cancelled.

Order book After Market Order Execution:

BUY QTY	BUY LIMIT PRICE
10	76.15
20	76.25
30	77.35
15	78.55
35	79.45

SELL QTY	SELL LIMIT PRICE
10	85.00
30	84.00
20	86.25
40	86.45
20	87.00

5c. Partial Buy market order shall be cancelled if opposite side orders are beyond the MPI price range. <u>For Example:</u>

LTP	Rs.100.00
Member/Trader defined MPI%	Not provided
Exchange defined MPI%	20% (i.e. Rs.120.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	108.00
20	107.00
30	106.05
15	106.00
35	105.00

SELL QTY	SELL LIMIT PRICE
10	110.00
30	115.00
20	120.00
40	120.05
20	121.00

Now, a buy market order is placed for 110 quantity. The market order will be executed within the MPI range. If the market order gets partially executed the remaining 50 quantity of the incoming market price order shall be cancelled.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
10	108.00
20	107.00
30	106.05
15	106.00
35	105.00

SELL QTY	SELL LIMIT PRICE
40	120.05
20	121.00

5d. Partial Sell market order shall be cancelled if opposite side orders are beyond the MPI price range.

For Example:

LTP	Rs.100.00
Member/Trader defined MPI%	Not Provided
Exchange defined MPI%	20% (i.e. Rs.80.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE
10	83.00
20	82.00
30	80.00
15	79.05
45	79.00

SELL QTY	SELL LIMIT PRICE
10	110.00
30	115.00
20	120.00
40	120.05
20	121.00

Now, a Sell market order is placed for 110 quantity. The market order will be executed within the MPI range. if the market order gets partially executed the remaining 50 quantity of the incoming market price order shall be cancelled.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE
15	79.05
45	79.00

SELL QTY	SELL LIMIT PRICE
10	110.00
30	115.00
20	120.00
40	120.05
20	121.00

Scenario 6:

If there are no opposite side orders, then the entire incoming market price order (or remaining order quantity if it is partially executed) shall be converted to a passive limit price order at the best price on same side of the order book, based on price-time priority.

6a. Entire Buy market order shall be converted to a passive limit price order at the best price on same side of the order book based on price-time priority, if there are no opposite side orders.

For Example:

LTP	Rs. 100.00
Member/Trader defined MPI%	Not Provided
Exchange defined MPI%	20% (i.e. Rs.120.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	108.00			
20	107.00			
30	106.05			
15	106.00			
35	105.00			

Now, a buy market order is placed for 100 quantity.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
110	108.00			
20	107.00			
30	106.05			
15	106.00			
35	105.00			

Entire 100 quantity shall be converted to passive limit price Rs. 108.00 which is the best price on the same side.

6b. Entire Sell market order shall be converted to a passive limit price order at the best price on same side of the order book based on price-time priority, if there are no opposite side orders.

For Example:

LTP	Rs.100.00
Member/Trader defined MPI%	No Provided
Exchange defined MPI%	20% (i.e.Rs.80.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
			10	110.00
			30	115.00
			20	120.00
			40	120.05
			20	121.00

Now, a Sell market order is placed for 100 quantity.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
			110	110.00
			30	115.00
			20	120.00
			40	120.05
			20	121.00

Entire 100 quantity shall be converted to passive limit price Rs. 110.00 which is the best price on the same side.

6c. Partial Buy market order shall be converted to a passive limit price order at the best price on same side of the order book based on price-time priority, if there are no opposite side orders remaining in the order book.

For Example:

LTP	Rs. 100.00
Member/Trader defined MPI%	Not Provided
Exchange defined MPI%	20% (i.e. Rs.120.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	108.00		10	109.00
20	107.00		20	110.00
30	106.05		10	110.25
15	106.00		10	112.00
35	105.00		15	112.45

Now, a buy market order is placed for 100 quantity.

Order book After Market Order Execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
45	108.00			
20	107.00			
30	106.05			
15	106.00			
35	105.00			

Partial 35 quantity of the Buy market order shall be converted to a passive limit price order at the best price on same side of the order book.

6d. Partial Sell market order shall be converted to a passive limit price order at the best price on same side of order book based on price-time priority, if there are no opposite side orders remaining in the order book.

For Example:

LTP	Rs.100.00
Member/Trader defined MPI%	No Provided
Exchange defined MPI%	20% (i.e.Rs.80.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
10	100.00		10	110.00
5	99.45		30	115.00
15	99.25		20	120.00
12	95.00		40	120.05
20	94.25		20	121.00

Now, a Sell market order is placed for 100 quantity.

Order book After Market Order execution

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
			48	110.00
			30	115.00
			20	120.00
			40	120.05
			20	121.00

Partial 38 quantity of the Sell market order shall be converted to a passive limit price order at the best price on same side of the order book.

Scenario 7:

If there are no pending orders on either side of the order book, then the entire incoming market price order (or remaining order quantity if it is partially executed) shall be converted to a passive limit price order at the day's LTP of that contract.

7a. Buy market order shall be converted to a passive limit price order at the day's LTP of that contract if there are no pending orders on either side of the order book.

For Example:

LTP	Rs. 100.00
Member/Trader defined MPI%	Not Provided
Exchange defined MPI%	20% (i.e. Rs.120.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE

SELL QTY	SELL LIMIT PRICE

Now, a buy market order is placed for 50 quantity.

Order book After Market Order is submitted

BUY QTY	BUY LIMIT PRICE
50	100.00

SELL QTY	SELL LIMIT PRICE

Order is converted to limit order at last traded price (LTP).

7b. Sell market order shall be converted to a passive limit price order at the day's LTP of that contract if there are no pending orders on either side of the order book.

For Example:

LTP	Rs. 100.00
Member/Trader defined MPI%	Not Provided
Exchange defined MPI%	20% (i.e. Rs.80.00)
Minimum absolute value in Rs.	Rs.10.00

Exchange defined MPI will be applicable since member/ trader has not provided the MPI %.

Order Book before order execution:

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE

Now, a Sell market order is placed for 50 quantity.

Order book After Market Order is submitted

BUY QTY	BUY LIMIT PRICE		SELL QTY	SELL LIMIT PRICE
			50	100.00

Order is converted to limit order at last traded price (LTP).

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