

# INET Nordic Auctions

## Efficient Price Formation in Auctions

Nasdaq, a leader and pioneer in the exchange industry, offers an efficient auction model for cash equities on Nasdaq Nordic<sup>1</sup>.

### Highlights

- One single auction model for price determination and share allocation in all auctions, including opening, scheduled intraday (e.g. Auction trading) and closing auctions.
- Individual orders are not displayed in the public data feed.
- Pre-trade transparency via real time Net Order Imbalance Information (NOII) including:
  - Equilibrium price (EP) or Best Bid and Ask for uncrossed books
  - Paired quantity
  - Imbalance
  - Imbalance direction

### INET Auction details

All auctions are divided into an order management and an uncross phase.

- During the order management, Orders will enter the auction Order book. Orders can be sent as Limit Orders or Market Orders. There are also possibilities to tie an Order to a specific auction by submitting special auction Order types utilizing the "Cross trade flags". An example of this is Limit On Close (LOC) which will be activated automatically in the closing auction.
- The time of the uncross is randomized within a short period at the end of the order management phase.
- Auction orders can be entered at any time during the day.

### Benefits

- Reduced Equilibrium price volatility.
- Robust price formation process.
- Possibilities to trade larger blocks more efficiently.
- Short randomization at the end of all auctions strengthens auctions' credibility and mitigates gaming possibilities.



DO NOT MISS OUT  
PARTICIPATING  
IN THIS AUCTION  
LIQUIDITY POOL:

More than 30% of the total electronic Order book turnover at Nasdaq Nordic is traded in auctions.

The average trade size is more than four times higher than for Lit Order book continuous trading (April 2023).

<sup>1</sup> For the purposes of this document, Nasdaq Nordic represents the common offering by Nasdaq Copenhagen A/S, Nasdaq Helsinki Ltd, Nasdaq Iceland hf., and Nasdaq Stockholm AB.

Examples of Nasdaq Nordic markets and their respective time schedules (CET) for the opening and closing auctions in shares:

	OPENING	RANDOM UNCROSS	CLOSING	RANDOM UNCROSS
Nasdaq Copenhagen	08:45-09:00	09:00:00-09:00:05	16:55-17:00	16:59:30-17:00
Nasdaq Helsinki	08:45-09:00	09:00:00-09:00:05	17:25-17:30	17:29:30-17:30
Nasdaq Stockholm	08:45-09:00	09:00:00-09:00:05	17:25-17:30	17:29:30-17:30
Nasdaq Iceland	10:15-10:30	10:30:00-10:30:05	16:25-16:30	16:29:30-16:30

During the auction, no individual Orders will be published. Pre-trade transparency will be available via Real time Net Order Imbalance Information (NOII).

## Auction example

Below follows an example on how an auction price is calculated. State of the Order book with respective Order quantities per price:

BUY	PRICE	SELL
	103	400
100	102	300
200	101	200
300	100	50
400	99	
500	98	
600	97	

### Net Order Imbalance Information (NOII)

Equilibrium price (EP)	101
Paired quantity	250
Imbalance	50
Imbalance direction	Buy

This is the public information given during the order management phase.

On each price level, volume is aggregated, and paired shares are calculated.

ACC BUY	BUY	PRICE	SELL	ACC SELL	PAIRED	IMBALANCE	DIRECTION
0		103	400	950	0	-950	Sell
100	100	102	300	550	100	-450	Sell
300	200	101	200	250	250	50	Buy
600	300	100	50	50	50	550	Buy
1000	400	99		0	0	1000	Buy
1500	500	98		0	0	1500	Buy
2100	600	97		0	0	2100	Buy

The auction algorithm seeks to maximize traded volume. The price leading to most shares traded is in this example 101.

Indicative auction information is published in real time in the Net Order Imbalance Indicator (NOII) message. NOII has the following indicative information provided:

- Equilibrium price
- Indicative Traded volume
- Imbalance volume
- Imbalance direction (Buy/Sell)
- Best Bid price (set to zero if the book is crossed)
- Best Ask price (set to zero if the book is crossed)
- Bid volume at best price level (set to zero if the book is crossed)
- Ask volume at best price level (set to zero if the book is crossed)

DISCLAIMER. While this fact sheet has been prepared on the basis of the best information available, Nasdaq Nordic Member Rules (NMR) is the legally binding document between Members and Nasdaq Nordic. The purpose of this fact sheet is solely to provide guiding information for trading Members.

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