

NORDIC@MID

December 2015



Nordic@Mid is a non-displayed trading functionality in Nordic cash equity trading in order to meet existing demands and to further improve the service offering to participants and investors.

FOR MORE INFORMATION AND LATEST STATISTICS:
<http://www.nasdaqomx.com/darkpool>

HIGHLIGHTS

NORDIC@MID offers separate continuous crossing of reference price pegged non-displayed orders as a complement to the central order book.

NORDIC@MID enables automatic execution for orders that do not meet the MiFID Large in Scale criteria.

Covers Nasdaq Nordic cash equity markets in Copenhagen, Helsinki, Iceland and Stockholm.

Nordic@Mid orders are non-displayed.

All orders are priced and executed at the midpoint of Reference Price (BBO).

Distinction between Nordic@Mid orders and orders in the central order book.

Minimum acceptable quantity protection to avoid partial executions.

Limit price protection supported as price cap / floor.

Post trade publishing real time via the public Nasdaq feeds.

Subject to the same Market Surveillance as the displayed markets.

Automatic access without additional requirements.

BENEFITS

The one global exchange dedicated to giving the world's most innovative ideas the most innovative means of execution.

REDUCES MARKET IMPACT

COST

Orders always matched at midpoint of prevailing reference price => no market/price impact

PRICE IMPROVEMENT

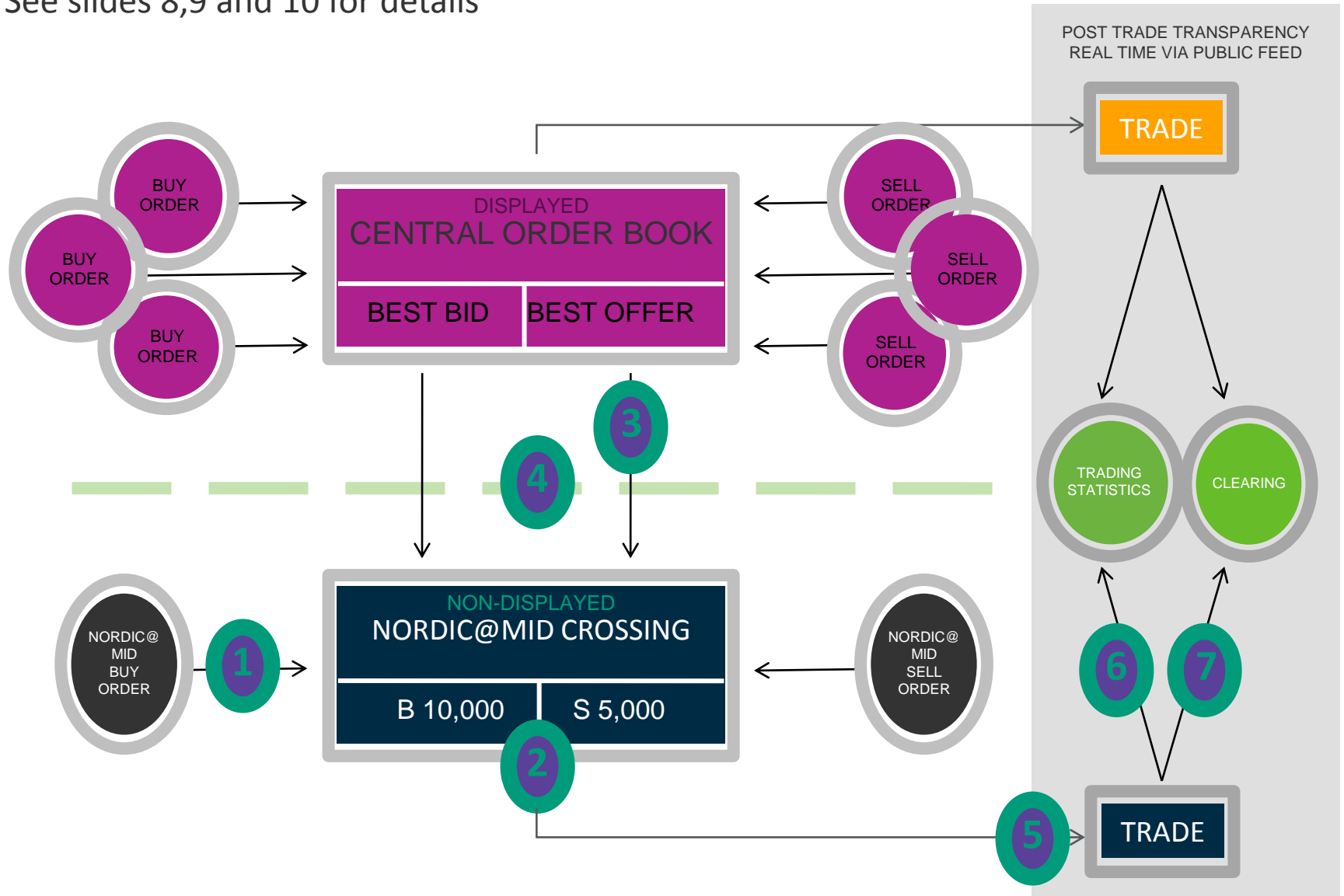
Enables member broker-dealers to offer midpoint matching to institutional investors

EFFICIENCY

Automatic execution of orders & reduced counterparty search costs and search time

SCHEMATIC OVERVIEW

See slides 8,9 and 10 for details



SCOPE

Nordic@Mid ensures transparency concerning price determination and enables trading members to minimize their trading costs

ELIGIBLE SHARES

All shares on Nasdaq
Copenhagen, Helsinki, Iceland
and Stockholm.

All Norwegian shares on
First North Sweden.

MINIMUM ORDER VALUE

>0 EUR/SEK/ISK/DKK/NOK

VALIDATION

Value of an order is
validated at the time of the
order entry or order
modification using previous
closing price of the order
book.

THE DETAILS

FUNCTIONALITY DETAILS

(1/3) – ORDER VALIDATION



ORDER VALIDATION: ORDER ENTRY TO NORDIC@MID CROSSING REQUIRES THAT

- order book is in Nordic@Mid instrument scope and
- participant sends the order to Nordic@Mid execution, and
- order value \geq the minimum order value: order value is validated using previous closing price of the order book, and
- order is inserted with peg type midpoint, without any offset.
- **If some of these criteria is not met, the incoming order is rejected.**


No pre-trade transparency: Orders are non-displayed, no prices or volumes or any information of the orders will be displayed in public feed. Orders are sent in via FIX.


Orders have their price automatically adjusted by the trading system in response to changes in BBO prices. Functionality of Nordic@Mid order price update follows the functionality of pegged order price update. This may lead to a situation where the original time priority cannot be guaranteed.

Supported optional order attributes: Minimum Acceptable Quantity and Limit price. Supported Time-in-Force attributes: Immediate-or-cancel, Good-till-time, Good-till-market close. Any open orders will be cancelled by the system after market close.

FUNCTIONALITY DETAILS (2/3) – MATCHING

Nasdaq Nordic central order book's BBO (Best Bid and Offer) as reference price. In Norwegian shares, Oslo Börs BBO.

- All orders are matched at the midpoint of BBO. 
- Matching priority: Participant-Size-Time.
- Matching takes place during continuous trading.
- Unfilled orders can remain in system.

Matching can result in execution prices being at half tick size levels as actual midpoint is always used. No rounding of order price to a less aggressive price. 

Suspended orders are removed from matching.

Orders are suspended by the system if: 

- central order book goes into intra-day auction, or
- the reference price doesn't exist due to abnormal market conditions (e.g. one-sided markets), or
- midpoint of reference price is with more than 4 decimals.

Nordic@Mid orders cannot interact with central order book orders: orders are executed solely against other Nordic@Mid orders.

FUNCTIONALITY DETAILS

(3/3) – POST TRADE

Executed trades are published real time via the public Nasdaq Nordic data feed. No counterparty disclosure.



Nordic@Mid executions are marked so that they can be identified. Separate MIC code will apply on private data. Public data feed protocols: TIP and ITCH.

Executed trades do not update the Last price, High/low, Average price, VWAP or have any effect on BBO in the central order book.

Executed trades update Turnover and market share statistics.



Clearing follows the clearing model of the order book/participant: CCP/bilateral and self clearing available.



EXPLANATION OF THE NORDIC@MID

1. **ORDER VALIDATION:** order entry to Nordic@Mid crossing requires that
 - a) order book is Nordic@Mid eligible,
 - b) participant sends the order to Nordic@Mid execution,
 - c) order value \geq the minimum order value: order value is validated using previous closing price of the order book,
 - d) order is inserted with peg type midpoint, without any offset.

If some of these criteria is not met, the incoming order is rejected. Orders can be entered, modified and cancelled. Orders have their price automatically adjusted by the trading system in response to changes in BBO prices. Functionality of Nordic@Mid order price update follows the functionality of pegged order price update. This may lead to a situation where the original time priority cannot be guaranteed. Order modification by a trader results the order size validation. Supported optional order attributes: MAQ and Limit price. TIF attributes: IOC, GTT, Good-till-market close. Orders are non-displayed: no prices or volumes or any information of the orders will be displayed in public feed. Protocol supporting Nordic@Mid order entry: FIX.

2. **MATCHING:** All orders are matched at the midpoint of BBO. Matching rules: Participant-Size-Time. Matching takes place during continuous trading. Unfilled orders remain in system, even if the minimum size criteria is no longer met because of partial execution.
3. **SUSPENDED ORDERS ARE REMOVED FROM MATCHING.** Orders are suspended by the system if:
 - a) central order book goes into intra-day auction, or
 - b) the reference price doesn't exist due to abnormal market conditions (e.g. one-sided markets), or
 - c) midpoint of reference price is with more than 4 decimals.
4. **TOTAL SEPARATION:** Nordic@Mid orders cannot interact with central order book orders: orders are executed solely against other Nordic@Mid orders. Note: Certain order routing strategies interact with Nordic@Mid and Lit Order book (e.g. "NMID").
5. **POST TRADE TRANSPARENCY:** Executed trades are published real time via public Nasdaq feeds without counterparty information. Nordic@Mid executions are marked so that they can be identified. **Separate MIC code will apply on private data.** Public data feed protocols: GCF-TIP and ITCH.
6. **EXECUTED TRADES UPDATE TURNOVER.** They do not update the Last price, High/low, Average price, VWAP or have any effect on BBO in the central order book.
7. **CLEARING FOLLOWS THE CLEARING MODEL OF THE ORDER BOOK/PARTICIPANT:** CCP/bilateral and self clearing available.

COMPARISON BETWEEN CENTRAL ORDER BOOK NON-DISPLAYED ORDERS AND NORDIC@MID ORDERS

	NORDIC@MID NON-DISPLAYED ORDERS	NON-DISPLAYED ORDERS IN CENTRAL ORDER BOOK
INSTRUMENT SCOPE	Copenhagen, Helsinki, Stockholm and Iceland: all shares Oslo: all shares	All shares.
MINIMUM ORDER SIZE	> 0 EUR / SEK / ISK / DKK / NOK	According to MiFID Large in Scale criteria: 50.000 – 500.000 EUR depending on ADT
REFERENCE PRICE PEGGING	Mid-point peg.	Primary peg, Mid-point peg and Market peg.
OFFSET AVAILABLE	No.	Yes.
LIMIT PRICE	Yes.	Yes.
MAQ	Yes.	Yes.
TIME-IN-FORCE ATTRIBUTES	Immediate-or-Cancel and day orders. Open orders will be cancelled by the system after market close.	Immediate-or-Cancel, day orders and Good-till-cancelled orders.
MATCHING PRICE	Actual mid-point is always used. No rounding of order price to a less aggressive price.	According to tick size table, ie mid-point peg may round to a less aggressive price.
MATCHING PRIORITY	Participant-Size-Time.	Price-Participant-Displayed-Time.