Market Model
Nasdaq Nordic
INET Nordic

Nasdaq Nordic Market Model 2015:02
Valid from February 16, 2015
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Definitions

The official definitions are in the NASDAQ OMX Nordic Member Rules (NMR) and the definitions listed here supplement the official definitions.

BBO
Best Bid Offer of an Order Book.

Call
Auction process to facilitate price formation with two distinct parts: the first part is an Order management phase and the second part is a matching process for all eligible Orders. The matching process is called an uncross (as it removes all Orders with crossing prices).

Call, closing
The Closing Call is the last Call of the day and produces the last auto matched Trades of the Order Book (if there are eligible Orders available for matching).

Call, opening
The Opening Call is the first Call of the day and produces the first auto matched Trades of the Order Book (if there are eligible Orders available for matching).

Call, Scheduled Intraday
The Scheduled Intraday Call is an intraday call at a specific time on each Exchange Day for certain Market Segments and/or Instruments, see Appendix S. The call will not be conducted on Nasdaq Stockholm during half days.

Imbalance Order
An Imbalance Order can be used in the auctions. It accepts the equilibrium price reached and fills the theoretical imbalance between the surplus and the deficit side.

Limit Order
A Limit Order stipulates a maximum purchase price or minimum selling price.

Market Order
A Market Order is an Order to sell or buy an Instrument at the current market price.

Market Segment
Grouping of Order Books with common characteristics, for example Order Books traded in the same way or Order Books having the same opening hours.

MiFID

NMR
NASDAQ OMX Nordic Member Rules.

On-exchange Trade
A Trade that is automatically matched in the Order Book in accordance with the NMR or executed outside the Order Book but in accordance with the NMR and reported to the Nasdaq Nordic as a Manual Trade.

On Open, On Scheduled Intraday, On Close, Orders
An On Open, an On Scheduled Intraday and/or an On Close Order can be specifically requested for execution at the opening price, the scheduled intraday price, or the closing price of the call. They can be specified as market priced or limit priced Orders.

Pegged Order
A Pegged Order allows to price Orders relative to the current market price for an Instrument.

Post-Trading Session
The period during the Trading Session after the Trading Hours and in which changes to and cancellation of Orders and Trades are permitted and Manual Trades may be reported.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Close</td>
<td>Order Book state in the first phase of Closing Call, preceding the Uncross, when Order Management is allowed.</td>
</tr>
<tr>
<td>Pre-Open/Pre-Open Session</td>
<td>The period during the Trading Session that is prior to the Trading Hours and in which Orders and Interests may be placed in the Order Book and Manual Trades may or must be reported.</td>
</tr>
<tr>
<td>Pre-Scheduled Intraday</td>
<td>The period during the Trading Session where Orders and Interests may be placed in order books comprising the Scheduled Intraday call, and manual trades may or must be reported.</td>
</tr>
<tr>
<td>Price Limit Validation</td>
<td>Price limit check performed upon Member request on entered Orders. The last sale will be the source of comparison.</td>
</tr>
<tr>
<td>Reserve Order</td>
<td>A Reserve order is an Order where a certain portion of the total volume of an Order is not displayed in the Order Book (a.k.a. Iceberg order).</td>
</tr>
<tr>
<td>Round Lot</td>
<td>The minimum number or the minimum nominal value of an Instrument.</td>
</tr>
<tr>
<td>Time of the Trade</td>
<td>The time, at which an Automatically Matched Trade is matched or a Manual Trade has been entered into.</td>
</tr>
<tr>
<td>Trading Hours</td>
<td>Trading Hours for each Market Segment are found in Chapter 3 of this document. Trading Hours start from the Uncross of the opening call and include the Uncross of the closing call.</td>
</tr>
<tr>
<td>Trading Session</td>
<td>The period during an Exchange Day, which includes the Pre-Open Session, the Trading Hours and the Post-Trading Session.</td>
</tr>
<tr>
<td>Uncross</td>
<td>A call ends with an Uncross where price determination and share allocation together with Order and Trade information dissemination take place. Uncross lasts a short time, usually a fraction of a second.</td>
</tr>
<tr>
<td>Volatility Guard</td>
<td>Volatility Guard is a trading pause and resumption process triggered by an aggressive single Order that deviates too much in percentage from the last sale price (Dynamic Volatility Guard) or from the reference price, which is normally the day's opening price (Static Volatility Guard). When the Volatility Guard is triggered, continuous trading is halted followed by an auction period after which the Order Book moves back to continuous trading.</td>
</tr>
</tbody>
</table>
1 Introduction

This document describes the functionalities for trading of Equities and Related on the regulated Market Segments and First North on Nasdaq Nordic, including Nasdaq Baltic\(^1\). Therefore this document covers functionalities that apply to Copenhagen, Stockholm, Helsinki, Iceland, Tallinn, Riga and Vilnius. Fixed Income is not covered by this document.

Chapter 2 describes the market structure, while chapter 3 presents an overview of the trading day. In chapter 4, the Trading Sessions during the trading day are described and Chapter 5 outlines the registration of Manual Trades.

Chapter 6 presents the Order types available and discusses the Order modification. Smart Order Routing on NasdaqNordic is described in Chapter 7.

While the document has been prepared on the basis of the best information available, Nasdaq Nordic accepts no liability for decisions taken, or systems work carried out by any party, based on this document. Content of this document may also be subject to discussions and in some cases approval from relevant authorities.

While NASDAQ OMX Nordic Member Rules (NMR) is a legally binding document between Members and Nasdaq Nordic, the purpose of this Market Model document is to provide additional guiding information for trading Members. For the sake of clarity, any additional and/or optional services provided by Nasdaq Nordic without separate written agreement are governed also for the relevant parts by NASDAQ OMX Nordic Member Rules.

Additional documents referenced in this documentation can be found at Nasdaq Nordic’s official website.

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\(^1\) For the purpose of this document Nasdaq Nordic refers to, either each individually or all together, NASDAQ OMX Copenhagen A/S, NASDAQ OMX Helsinki Ltd, NASDAQ OMX Iceland hf. and NASDAQ OMX Stockholm AB. NASDAQ OMX Nordic may also include NASDAQ OMX Baltic that respectively refers to NASDAQ OMX Riga, NASDAQ OMX Tallinn and NASDAQ OMX Vilnius. Nasdaq Copenhagen, Nasdaq Helsinki, Nasdaq Iceland, Nasdaq Riga, Nasdaq Stockholm, Nasdaq Tallinn and Nasdaq Vilnius are respectively brand names for NASDAQ OMX Copenhagen A/S, NASDAQ OMX Helsinki Ltd., NASDAQ OMX Iceland hf., NASDAQ OMX Riga AS, NASDAQ OMX Stockholm AB, NASDAQ OMX Tallinn AS and NASDAQ OMX Vilnius.
2 Overview of Market

2.1 Market Structure

The hierarchy of markets is based on different Market Segments which group Instruments into relevant collections for various trading, administrative and regulatory purposes. The following structure is applied within Nasdaq Nordic market.

**Market Segments**

Nasdaq Nordic is divided into a set of Market Segments under each Exchange individual MIC-code (e.g. XSTO). The complete and accurate list of Markets segments can be found in Nasdaq Nordic market data protocols, or via Trading operations (contact details can be found on the Nasdaq Nordic website).

The following Instrument types are supported by groups of Market Segments:

<table>
<thead>
<tr>
<th>Equities and Related</th>
<th>Miscellaneous Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>STO Equities</td>
<td>HEL Equities</td>
</tr>
<tr>
<td>Shares</td>
<td>X</td>
</tr>
<tr>
<td>Warrants, Certificates and ETNs</td>
<td>X</td>
</tr>
<tr>
<td>Equity Rights</td>
<td>X</td>
</tr>
<tr>
<td>Investment Fund Units and ETFs</td>
<td>X</td>
</tr>
<tr>
<td>Convertibles</td>
<td>X</td>
</tr>
<tr>
<td>ETC</td>
<td>X</td>
</tr>
<tr>
<td>Other Collective Investment Schemes</td>
<td>X</td>
</tr>
</tbody>
</table>

*Currently no active Order Books.

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2 NASDAQ OMX Iceland will also trade fixed income products on the INET Nordic trading platform. There is a separate market model document created for this purpose. NASDAQ OMX Baltic will also trade First North fixed income products on the INET Nordic trading platform. More information provided in Trading specifications of NASDAQ OMX Baltic Member Rules.
2.2 Lists

While the list structure at Nasdaq Nordic has no impact on the market model, it may be useful to be aware of the lists for the main equity market. Details regarding all available lists are provided at Nasdaq Nordic website.

The Nordic List

The local Nasdaq Nordic markets will continue to be the listing venue and point of contact for already listed companies and future applicants to the Nordic list.

The list structure for Nasdaq Nordic is based on the Nordic List concept:

1. Large Cap
2. Mid Cap
3. Small Cap

Companies on the Nordic list are presented in a common manner and divided into segments. Companies are presented first by market capitalization and then by industry sector, following the international ICB Company classification standard. There are three market capitalization segments: Nordic Small Cap, Nordic Mid Cap and Nordic Large Cap.

Nordic Large Cap segment includes companies with a market capitalization equivalent to EUR 1 billion or more, Nordic Mid Cap segment includes companies with a market capitalization of EUR 150 million or more, but less than EUR 1 billion. Nordic Small Cap segment includes companies worth a market capitalization of less than EUR 150 million. All classes of the listed share in the company are included in the market capitalization calculation.

Multiple listed companies are placed in the same segment on all applicable Nasdaq Nordic markets, based on the highest market capitalization for the company.

Other Lists

In addition to the Nordic List concept, there are additional lists for special circumstances like:

Stockholm:
1. When Issued
2. Xternal list for foreign companies

Helsinki:
1. Prelist
2. Other Securities

Copenhagen:
1. Investment Funds
2. Other collective Investment schemes

Baltic List
Structure of lists of Instruments traded on the Tallinn, Riga and Vilnius:
1. Baltic Main List
2. Baltic Secondary List

The Baltic Main List is a line-up of all blue-chip companies listed on the Tallinn, Riga and Vilnius. To be eligible for inclusion, a company must have 3 years of operating history, an established financial position, market cap of not less than EUR 4 million, with reporting according to the International Financial Reporting Standards, and a free float of 25% or worth at least EUR 10 million. The Baltic Secondary List comprises companies that do not meet quantitative admission requirements (free float, capitalization). The admission requirements are not as strict compared with those of the Baltic Main List.

2.3 Trading Rights

Trading rights are given to the following user categories:\(^{3}\):

1. **Trading right** is given to the Members’ **Exchange Traders**.
   All trading personnel must be authorized to trade. The authorization and the trading rights are according to special agreements on the financial market when applicable.

2. **Direct Market Access (DMA)** entitles a Member to electronically and automatically route clients’ Orders directly to the Trading System through the use of Internet connections or other technical connections between the trading Member and the client.

3. **Algorithmic trading** entitles a Member to Trade through automated trading facilities in the form of placement, change, or cancellation of Orders in the Order Book by using software, which automatically generates a large number of Orders in response to specific pre-programmed factors. A special form of algorithmic trading account (AUTD) can also be set up to handle algorithmic trading, that entitles to a discount according to the current price list in force. The difference between Algorithmic trading right and AUTD account is that AUTD is to be used for purely automated trading, i.e. common execution algorithms are not eligible for this account. The definition of the eligible trading flow can be found from a separate Terms and Conditions document.

4. **Sponsored Access** entitles a Member to set up an electronic access arrangement under which the Member permits its client to transmit Orders in Member’s membership identity directly or through a third party vendor to the Trading System.

Trading rights are set on market level for each Member. This means that the Exchange Trader automatically can Trade in all Order Books at the applicable Nasdaq Nordic markets to which membership is established.

Notes:
- Although the Orders can be entered/routed automatically to the Trading System, there are always authorized personnel at the Member responsible for all Orders.
- Membership needs to be applied separately for each of the markets within Nasdaq Nordic, in order for the Member to start trading on each of the markets.

\(^{3}\) For more information, see NMR.
3 Trading sessions and holiday schedules

### 3.1 Regular trading sessions for regulated markets (times in CET)

<table>
<thead>
<tr>
<th>Market</th>
<th>Opening Call</th>
<th>Continuous Trading</th>
<th>Scheduled Intraday Call***</th>
<th>Closing Call</th>
<th>After Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-open</td>
<td>Un-cross</td>
<td>Time</td>
<td>Pre-close</td>
<td>Un-cross</td>
</tr>
<tr>
<td>Stockholm Equities</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td>13:30</td>
<td>13:35</td>
</tr>
<tr>
<td>Helsinki Equities</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td>13:30</td>
<td>13:35</td>
</tr>
<tr>
<td>Market Segment OMX STO Equities NOK* Follows Norwegian Holiday schedules (Appendix I)</td>
<td>-</td>
<td>-</td>
<td>09:00-16:30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stockholm and Helsinki Warrants</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Stockholm and Helsinki Equity rights, subscr.opt, Convertibles, Fund Units, Certificates and ETNs</td>
<td>08:00</td>
<td>09:00:30</td>
<td>09:00:30-17:25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Market Segment OMX STO Fund Units NOK Follows Norwegian Holiday schedules (Appendix I)</td>
<td>08:00</td>
<td>09:00:30</td>
<td>09:00:30-16:20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Market Segments OMX STO Actively-Managed Funds and OMX HEL Actively-Managed Funds</td>
<td>08:00</td>
<td>09:30</td>
<td>09:30-17:25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Copenhagen Equities</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-16:55</td>
<td>13:30</td>
<td>13:35</td>
</tr>
<tr>
<td>Copenhagen Warrants, Certificates and ETNs</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-16:55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Copenhagen Equity Rights</td>
<td>08:00</td>
<td>09:00:30</td>
<td>09:00:30-16:55</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
### 3.2 Regular trading sessions for First North markets (times in CET)

<table>
<thead>
<tr>
<th>Market</th>
<th>Opening Call</th>
<th>Continuous Trading</th>
<th>Scheduled Intraday Call***</th>
<th>Closing Call</th>
<th>After Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-open</td>
<td>Un-cross</td>
<td>Pre-scheduled intra-day</td>
<td>Un-cross</td>
<td>Pre-close</td>
</tr>
<tr>
<td>First North Copenhagen</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-16:55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First North Finland</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First North Iceland</td>
<td>09:00</td>
<td>10:30 **</td>
<td>10:30 **-16:25</td>
<td></td>
<td>16:25</td>
</tr>
<tr>
<td>First North Stockholm NOK*</td>
<td></td>
<td></td>
<td>9:00-16:30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First North Stockholm</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td></td>
<td>17:25</td>
</tr>
<tr>
<td>First North Convertibles</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-17:25</td>
<td></td>
<td>17:25</td>
</tr>
<tr>
<td>First North Baltic</td>
<td>08:00</td>
<td>09:00</td>
<td>09:00-14:55</td>
<td></td>
<td>14:55</td>
</tr>
</tbody>
</table>
* Special order management conditions apply for routable PDLE orders.

**Times stated in box are CET standard time. During CET daylight savings time, the opening time and closing hours are an hour later in CET (because Iceland has not adopted the daylight savings time). Pre-Open starts at 10:00 CET, Opening Uncategorized at 11:30 CET and Closing Uncategorized at 17:30 CET.

*** See Appendix S for market segments and/or Instruments conducting Scheduled Intraday Calls. Continuous trading on the market segments and/or Instruments in question is not possible during the Scheduled Intraday call.

### 3.3 Normal Trading Hours (local time)

The trading hours for Nasdaq Nordic are as follows:

<table>
<thead>
<tr>
<th>Market</th>
<th>Copenhagen</th>
<th>Stockholm</th>
<th>Helsinki</th>
<th>Iceland</th>
<th>Riga/Tallinn/Vilnius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td>09:00–17:00</td>
<td>09:00–17:30*</td>
<td>10:00–18:30</td>
<td>09:30–15:30</td>
<td>10:00–16:00</td>
</tr>
<tr>
<td>Equity rights</td>
<td>09:00–17:00</td>
<td>09:00–17:30*</td>
<td>10:00–18:25</td>
<td>09:30–15:30</td>
<td>10:00–16:00</td>
</tr>
<tr>
<td>Convertibles</td>
<td></td>
<td>09:00–17:25*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warrants, Certificates and ETNs</td>
<td>09:00–16:55</td>
<td>09:00–17:25*</td>
<td>(Warrants only)</td>
<td>10:00–18:25</td>
<td>10:00–16:00</td>
</tr>
<tr>
<td>Certificates and ETNs (not CPH), ETFs, Investment Funds and Other Collective Investment Schemes</td>
<td>09:45–17:00</td>
<td>09:00–17:25*</td>
<td>10:00–18:25</td>
<td>09:30–15:30</td>
<td>10:00–16:00</td>
</tr>
<tr>
<td>Actively-Managed Funds</td>
<td></td>
<td>09:30–17:25*</td>
<td>10:30–18:25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norwegian equities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norwegian ETFs</td>
<td>9:00 – 16:30**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First North Equities</td>
<td>09:00–17:00</td>
<td>09:00–17:30*</td>
<td>10:00–18:30</td>
<td>09:30–15:30</td>
<td>10:00–16:00</td>
</tr>
<tr>
<td>Norwegian equities</td>
<td>9:00–16:30**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First North Convertibles</td>
<td>09:00–17:30*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During half days, the Post-Trading Session
- * starts at 13:00 CET and closes at 13:30 CET
- ** starts at 13:10 CET and closes at 13:30 CET
3.4 Concept of calls

Opening, closing, scheduled intraday and non-scheduled intraday calls are formed by two sub phases: order management and uncross.

1. Order management
   a. During Pre-open there is market transparency of all Orders with displayed volume. Orders only eligible for the opening call are not displayed.
   b. Before the closing call, only displayed Orders are visible. Orders only eligible for the closing call are not displayed.

2. Price determination and share allocation takes place in uncross.

The opening call procedure is conducted to open all Order Books at virtually the same time.

3.5 Schedule for Manual Trades

Manual Trades (Trade reporting) is allowed from Pre-open up until Closed on all markets. Please refer to chapter 4.3, 4.5 and 5 for more information.

3.6 Schedule for Holidays

See Appendix I.
4 Sessions during the trading day

4.1 Pre-open Session

During the Pre-open Session, Order and Trade management including Order entry for opening call, scheduled intraday call, and closing call are allowed.

In the examples below Nasdaq Stockholm and Nasdaq Helsinki schedules are described.

4.2 Calls

The Call procedure (auction) starts in all Order Books of the Market Segment at virtually the same time. A Call consists of two phases: Order management and uncross. The uncross lasts a short time, usually a fraction of a second. A random uncross sequence for the Order Books will be applied.

To facilitate the price formation process in calls, the Order Book information is supplemented with tentative matching information. It includes indicative matching price based on the prevailing Order information and how much total volume (including non-displayed volume) would be matched at the indicated price.

The uncross phase includes price determination for opening, scheduled intraday and closing calls respectively, share allocation, and order information delivery.

4.2.1 Opening call

During the opening call there is Market by Order dissemination of the Order Book. Order entry and full Order management is available through the 9:00 opening auction uncross (and after). Orders with time-in-force conditions Day, Good-Till-Cancel, Immediate-Or-Cancel (IOC) and Good-Till-Time as well as On-open Orders (Market-On-Open (MOO), Limit-On-Open (LOO) and Imbalance On-Open Orders (IOOP)) become eligible interest for the opening auction. An IOC Order is eligible for execution in the opening auction and will be cancelled after the completion of the opening auction if it is not fully executed. On-scheduled intraday orders (Market-on-scheduled intraday orders (MOS), Limit-on-scheduled intraday orders (LOS), and Imbalance-on-scheduled intraday orders (IOSI) can be entered but are effective for the scheduled intraday auction only. On-close Orders (Market-On-Close Orders (MOC), Limit-On-Close Orders (LOC) and Imbalance On-Close Orders (IOOC)) can be entered, but are effective for closing auction only.

Orders are displayed in the market by Order feed at their entered limit prices. The book will show crossed prices if the highest bids are at higher price levels than the lowest offers. The market by Order does not include On-open, On-scheduled intraday, On-close, Non-displayed, Market and Non-displayed Reserve (Hidden iceberg) volumes.

Orders entered during Pre-open are assigned time priority. No matching (continuous market) until 9:00. Imbalance information dissemination begins exactly 15 minutes before opening call for all issues, and is updated once a second if information is changed. The uncross takes place at the end of the opening call, which may be subject to auction extension, see chapter 4.11 and Appendix U. Unexecuted Orders (non-IOC
and non-on open Orders) remaining after the uncross will transition into the continuous market with retained time-priority.

<table>
<thead>
<tr>
<th>Pre-Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00 – 08:45</td>
</tr>
<tr>
<td>Order Management</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Auto matching</td>
</tr>
<tr>
<td>Market by Order transparency</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Equilibrium data (Net Order Imbalance information)</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

**Figure 2 Schedule for a typical market opening with Call Auction at 09:00 in Stockholm/Helsinki**

### 4.2.2 Order entry during call

Time priority for Orders entered prior to the uncross and during continuous trading is based on the Order entry time. Orders (with time-in-force condition GTC) entered prior to the current trading day will keep their time priority.

### 4.2.3 Scheduled Intraday Call

Continuous trading is halted at 13:30 CET on the relevant Market Segments and /or Instruments, see Appendix S, and followed by an auction period with no auto matching. The auction period lasts approximately 5 minutes and ends with an uncross. Right after the uncross, the Market Segments and /or Instruments move back into continuous trading.

The auction will not be prolonged if there are no crossed prices.

Order entry and full order management are available during the scheduled intraday call period.

Market by order dissemination during the pre-scheduled intraday period does not include On-scheduled intraday orders, On-close orders, Non-displayed, Market, and Non-displayed Reserve (Hidden iceberg) volumes.

Orders with time-in-force conditions Day, GTC, and GTT are transitioned automatically into the Pre-intraday. Pegged orders are transitioned at their last limit price. MOS, LOS, and IOSI can be entered until the scheduled intraday call uncross. An IOC order entered during the Pre-intraday is eligible for execution in the scheduled intraday call
uncross and will be canceled after completion of the uncross if not fully executed. MOC, LOC, and IOOC orders can be entered, but are effective for the closing auction only.

Orders entered are assigned time priority. The imbalance dissemination begins exactly at 13:30 CET with updates once a second if information is changed.

4.2.4 Closing call

Leading up to the closing call uncross there is Market by Order dissemination of the continuous Order Book. The Market by Order does not include MOC, LOC, IOOC, non-displayed, Market and Non-displayed Reserve (Hidden iceberg) volumes.

Continuous trading is halted 17:25 followed by a Pre-close period with no auto matching. The Pre-close period lasts approximately for 5 minutes and ends with the closing call uncross that randomly among Order Books takes place between 17:29:30 and 17:30. Pre-close period may be subject to auction extension, see chapter 4.11 and Appendix U. Order entry and full Order management is available during the Pre-close with the exception for Pegged Orders that cannot be entered.

Orders with time-in-force conditions Day, Good-Till-Cancel and Good-Till-Time are transitioned automatically into the Pre-close and are eligible interest for the closing auction. Pegged Orders are transitioned at their last limit price. On-close Orders, i.e. Market-on-close Orders (MOC), Limit-on-close Orders (LOC) and Imbalance on-close Orders (IOOC) can be entered until the closing call uncross. An IOC Order entered during Pre-close is eligible for execution in the closing call uncross.

Orders entered are assigned time priority. The Imbalance dissemination begins exactly 17:25 and is updated once a second if information is changed.
<table>
<thead>
<tr>
<th>Continuous trading</th>
<th>Pre-Scheduled Intraday*</th>
<th>Pre-Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 17:25</td>
<td>13:30 - ~13:35</td>
<td>17:25 - ~17:30</td>
</tr>
</tbody>
</table>

**Order management**
- Full Order management
- Order entry: DAY, GTT, GTC, IOC, on-scheduled intraday, and on-close Orders
- Order cancel and cancel/replace allowed

**Auto matching**
- Yes
- No

**Market by Order transparency**
- Unexecuted DAY, GTC, GTT Orders from the opening uncross enter continuous market, IOC and On-open Orders are cancelled
- Continuous book display Orders are disseminated.
- On-close Orders non-displayed and non-displayed Reserve (Hidden iceberg) volumes are not disseminated

**Equilibrium data (Net Order Imbalance information)**
- No

---

* Continuous trading is halted on certain market segments, see Appendix S, 13:30 CET – 13:35 CET, after which time continuous trading is resumed.

**Figure 3 Schedule for scheduled intraday with Call Auction at 13:30 on relevant market segments, and market closing with Call Auction at 17:30 in Stockholm/Helsinki**

**4.2.5 Net Order Imbalance**

During the imbalance dissemination period preceding the opening and closing uncross, the following Equilibrium data is provided:

- Equilibrium price (EP) and volume
  - Equilibrium price
  - Traded volume (including Imbalance Orders)
  - Imbalance volume (excluding Imbalance Orders)
  - Imbalance direction (Buy/Sell)
  - Best Bid price (will be equal to the EP if the book is crossed)
  - Best Ask price (will be equal to the EP if the book is crossed)
Bid volume at best price level or aggregated at EP if the book is crossed
Ask volume at best price level or aggregated at EP if the book is crossed

Best Bid and Ask prices and volumes are defined based on all Orders except Imbalance Orders.

The Equilibrium Opening Price is based on all Orders (Day, GTC, GTT, IOC, LOO, MOO, Non-displayed) and includes all Order volume (except Imbalance Orders). The Equilibrium Price is disseminated in valid prices (i.e. using the relevant tick size table).

The Equilibrium Scheduled Intraday Price is based on all Orders (Day, GTC, GTT, IOC, LOS, MOS, Non-displayed) and includes all Order volumes (except Imbalance Orders). The Equilibrium Price is disseminated in valid prices (i.e. using the relevant tick size table).

The Equilibrium Closing Price is based on all Orders (Day, GTC, GTT, IOC, LOC, MOC, Non-displayed) and includes all volume except Imbalance Orders. The Equilibrium Price is disseminated in valid prices (i.e. using the relevant tick size table).

### 4.2.6 Price determination

In the opening uncross, all Orders except On-scheduled intraday and On-close Orders are eligible. In the scheduled intraday uncross, all orders in the continuous book and all On-scheduled intraday orders are eligible. In the closing uncross, all Orders in the continuous book and all On-close Orders are eligible. An uncross will only take place if there are crossing prices in the total Order Book. That is, if the best bid price is equal to or higher than the best (lowest) ask price. If so, an equilibrium price using the relevant tick size table will be determined according to the following criteria:

1. The price that maximizes the number of shares at the time of the uncross to be executed.
2. If more than one price exists under (1), the uncross shall occur at the price that minimizes any imbalance.
3. If more than one price exists under (2), the uncross shall occur at the price with the highest market pressure (i.e. shares will remain unexecuted in the cross).
4. If more than one price exists under (3), the uncross shall occur at a price that is the average price between the highest price with positive imbalance and the lowest price with negative unbalance. If this price is off tick it will be rounded to nearest tick. In the case of equal distance it will be rounded down.

When the equilibrium price has been determined, all Orders that are more generous than this price are filled, or partially filled based on the available volumes on the opposite side.

Intraday calls follow the above given principles. Orders designated for intraday calls do not participate in other auctions.

### 4.2.7 Share allocation

Share allocation follows price-internal-display-time priority. NB. Nasdaq Baltic use price-display-time priority.
1. Orders better than the equilibrium price are always filled.
2. In case of imbalance, Orders at the equilibrium price eligible for matching are filled first by using internal priority. The Order on deficit side with the best priority defines the first ‘preferred party’. Then possible Orders of the preferred party on the surplus side at the latest paid price level are first matched against the Orders of the preferred party on the deficit side. If the deficit side is not fully matched, the following preferred party is defined and Orders are matched according to the same principles.
   NB. Internal Order prioritization is not applicable to Nasdaq Baltic.
3. Orders at the equilibrium price eligible for matching are filled secondly by using time priority, if there are still Orders on deficit side after internal priority allocation.

As the meaning of Market Orders implies a more aggressive price than any limit order, it means that Market Orders have the highest priority. In the auctions, Market Orders can be MOO/MOS/MOC Orders, or regular Market Orders entered in Pre-Open/Pre-intraday/Pre-Close with time-in-force IOC. Those Orders will in effect have the highest priority of all Orders. The ranking between these two flavors of Market Orders is based on time of entry.

Volume with any Non-displayed attribute has lower priority than corresponding volume without non-displayed attribute. After the uncross, unexecuted MOO/MOS/MOC, LOO/LOS/LOC, and IOOP/IOSI/IOOC Orders will be cancelled.

A cross Trade message will be published in real time after the cross with aggregated auction information. Individual Trades executed in the calls will however be publicly published right after a cross and later at the end of the trading day according to specifications available on the Nasdaq Nordic website. NB. The trading participants always receive their individual Trades in their private data.

4.3 Manual Trades in the Pre-Open session

Manual Trades made during the Pre-Open Session must be reported before the execution of the uncross.

4.4 Continuous trading

Trading in the Order Book in accordance with the NMR results in On-exchange Trades. During continuous trading, Manual Trades can be registered with the Trade types specified in chapter 5.

Nordic@Mid offers a separate continuous crossing of reference price pegged Non-displayed Orders as a complement to the central Order Book. See Appendix N.
In continuous trading, each new incoming Order is immediately checked for execution against Orders on the opposite side of the Order Book. Orders can be executed in full or partially in one or more steps.

Orders in the Order Book will be matched according to the priority: 1=price; 2=internal; 3=displayed; 4=time.

NB. In Nasdaq Baltic, the priority is: 1=price; 2=display; 3=time.

Buy or sell Orders entered with the same price as a corresponding buy or sell Order in the Order Book will be matched into a Trade.

Buy Orders entered into the Order Book with a higher buy price than the sell Order with the lowest price (crossing prices), will be matched into one or more Trades depending on the volume of the incoming Order and the volume and the price of the sell order(s). The matching process will try to fill as much as possible of the volume in the incoming buy Order until the limit of the crossing prices is passed.

Sell Orders entered into the Order Book with a lower sell price than the buy Order with the highest price (crossing prices), will be matched into one or more Trades depending on the volume of the incoming Order and the volume and the price of the buy order(s). The matching process will try to fill as much as possible of the volume in the incoming sell Order until the limit of the crossing prices is passed.

The priority Order in the same price level is first internal (where the incoming Order is executed against the Member’s own Orders\(^4\)), then displayed volume over non-displayed volume, and then the time when the Order was sent to the Order Book.

Non-displayed Volume may either be part of a Reserve Order (“iceberg order”, chapter 6 for Order types and attributes) or a fully Non-displayed Order.

### 4.5 Post-Trading

<table>
<thead>
<tr>
<th></th>
<th>Post-trading</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:30-18:00</td>
<td>Order cancel</td>
</tr>
<tr>
<td>Order management</td>
<td>Order cancel</td>
</tr>
<tr>
<td>Auto matching</td>
<td>No</td>
</tr>
<tr>
<td>Market by Order transparency</td>
<td>Order cancel messaging</td>
</tr>
<tr>
<td>Equilibrium data (Net Order Imbalance information)</td>
<td>No</td>
</tr>
</tbody>
</table>

**Figure 4 Schedule for a typical Post-Trading Session on Nasdaq Stockholm/Helsinki**

\(^4\) Member’s own Orders include Orders introduced under the Member’s Market Participant ID (MPID), excluding Member’s Sponsored Access Client’s Orders, which will not be considered as Member’s own Orders.
During the Post-Trading Session the following actions are allowed:

- Order cancellation
- Off hours transactions
- Limited Order update (reduce volume on GTC Orders)

Trade cancellations are made in accordance with NMR.

Manual Trades during the Post-Trading Session can be reported in the Post-Trading Session (up until Closed) or at the latest in the Pre-Open session the next trading day.

On entering the Post-trading phase, expired Orders are deleted.

4.6 Closing

Trades for deferred publication (depending on the allowable defer time) are published. No information or functions are accessible but logons and database queries are allowed.

4.7 Trade publication

These rules apply to central Order Book trading and Manual Trades in all trading sessions.

Trades are published in real-time. Counterparty information is provided according to the following:

Post-trade anonymity
- Nasdaq Iceland and First North Iceland: all Instruments
- Nasdaq Stockholm and First North Stockholm: Norwegian equities admitted to trading

In Instruments with post-trade anonymity, the counterparties are not disclosed either in real time public feed or end of day.

Voluntary post-trade anonymity
- Nasdaq Copenhagen, Helsinki and Stockholm: current and former Large Cap and the main index shares
- Nasdaq Helsinki and Stockholm: Exchange Traded Funds (ETFs)

In Instruments with voluntary post-trade anonymity, a Member may choose whether its counterparty information is disclosed or not. The choice on post-trade anonymity may be made separate for shares and ETFs on Member level per exchange. Default set-up for a Member is post-trade counterparty visibility, where the Member's counterparty information is published real-time. Post-trade anonymity will be set to the Member's static data based on the Member's notification. If a Member has chosen the voluntary post-trade anonymity, its counterparty information is not disclosed in real time public feed nor end of day.

Counterparty information published real-time
- Nasdaq Tallinn, Vilnius and Riga: all Instruments
- First North Baltic: all Instruments
- Nasdaq Copenhagen, Helsinki and Stockholm: all other Instruments
- First North Copenhagen, Finland and Stockholm: all Instruments

4.8 Trading halts and Matching halts

Trading may be suspended by Nasdaq Nordic either due to technical reasons or regulatory reasons. Suspensions are regulated in NMR.

Technical suspension means that trading is suspended when the Order Book(s) become inaccessible for technical reasons.

Regulatory suspension means that the Order Book(s) are suspended due to rules and regulations. A regulatory suspension may affect one or several markets, Segments or Order Books.

4.8.1 Stop codes

The stop codes listed below are used on Nasdaq Nordic:

MH – Matching Halt
RH – Regulatory Halt
TH – Trading Halt
KO – Trading Halt – Knock-Out
TS – Technical Stop
VHD – Volatility Halt – Dynamic
VHS – Volatility Halt – Static

Stop codes explained in further detail in the paragraphs below (with the exception of Volatility Halts which are explained in a separate section on Volatility Guards) prohibit Order entries and Order amendments as well as Trade reporting. The Matching Halt is similar to the Trade Halt but Trade reporting is allowed. All stop reasons are also published as Exchange Notices in close connection to the event.

Suspension due to technical reasons (manual or automatic) (TS)

Used when the system is restarted (by the technical operations personnel) after a fatal technical error. All Order Books are set in a stop state. Technical disruptions are regulated in NMR. Trading must be suspended if a technical disturbance causes a major part of the Members (market shares) to lose connection to the markets.

Suspensions due to regulatory reasons (manual)

On Nasdaq Nordic, a trading halt is imposed when there is an obvious risk that trading will no longer be carried out on equal terms or will not be based upon sufficient information (unfair market conditions). All investors must have equal access to information about the Instruments traded. Whenever Nasdaq Nordic encounters a situation of ‘unfair market conditions’ a trading halt is considered.

There are several variants of Trade halt due to regulatory reasons: Matching halt (MH), Trading halt (TH), Trading halt – Knock-Out (KO) and Regulatory halt (RH):
• **Trading halt (TH)**

The trading halt is used as a regular procedure that temporarily halts trading when trading cannot take place in an orderly fashion. The duration of the trading halt continues until trading can take place in an orderly fashion again. The following applies to Instruments covered by a trading halt:

- Automatic Order Matching ceases
- Placement of new Orders or changes in Orders are not permitted, however an Order may be cancelled from the Order Book
- For Nasdaq Helsinki and Stockholm, Manual Trades entered into prior to the trading halt shall be reported immediately as soon as trading has resumed.
- For Nasdaq Copenhagen and Iceland, Manual Trades can be reported during a trading halt provided the Member ensures that any non-Member counterpart is made aware that the Instrument is in trading halt.

• **Trading halt - Knock-Out (KO)**

Trading halt - Knock-Out is used where an Instrument is placed in Trading halt due to a knock-out event. Trading halt – Knock-Out exists for informative purposes and is identical in functionality to the Trading halt (TH).

• **Regulatory halt (RH)**

The regulatory halt was introduced in connection to the introduction of MiFID. In Stockholm Finansinspektionen (the Swedish Financial Supervisory Authority) decides whether such trading halt shall prevail. The following applies to Instruments covered by a trading halt:

- Automatic Order Matching ceases
- Placement of new Orders or changes in Orders are not permitted, however an Order may be cancelled from the Order Book
- Manual Trades may not be reported

• **Matching halt (MH) (not applicable for Nasdaq Stockholm)**

Matching may be halted when an announcement regarding an Instrument is to be made, in the event of irregular price movements, suspicion of unequal information in the market, or other events. The duration of the matching halt shall be as short as possible. The following applies to Instruments covered by a matching halt:

- Automatic Order Matching ceases
- Placement of new Orders or changes in Orders are not permitted, however an Order may be cancelled from the Order Book
- Manual Trades may be reported.

4.8.2 Resuming trading after a halt

When a halt ceases, trading is resumed and the restrictions on Order entry and changes to Orders cease. The Members are again committed by Orders placed in the Order Book. It may be decided that trading after a halt should be resumed with a price-discovery process (call auction) equal to the opening call (including the On-open Order Conditions but without the possibility to enter Imbalance Orders). It is also possible to “flush” the Order Book before resuming trading according to NMR.
4.9 Flushing of Order Books (removal of Orders)

The Order cancellation policy refers to “Good-till-Cancelled” (GTC) Orders entered in an Order Book on Nasdaq Nordic and First North equity markets in Copenhagen, Helsinki, Iceland, Stockholm, Riga, Tallinn and Vilnius in the event of corporate actions/dividends.

Corporate actions (such as Stock splits and Bonus issues) or dividends in listed companies, causing the market price to be adjusted significantly when taking effect on ex-date, are often subject to fluctuations in the Order Book during the Pre-opening session, as GTT Orders are entered into the Order Book at old market price. This can lead to Trades being executed at price levels deviating from the current market price.

To minimize the impact of Orders that reflect the old price level, Nasdaq Nordic will flush all Orders during the Post-Trading Session the trading day before a corporate action or dividend with a significant price impact is to take place. The flushing procedures are intended to protect investors from trading on obsolete terms and to offer security to investors who use the GTC Order functionality.

The INET Nordic system will also support a supervisory cancel message at Order Book expiration. This means that the GTC Orders residing in an expiring Order Book will be canceled automatically and a supervisory cancel message will be sent out at the end of the trading day.

- Flushing criteria

Nasdaq Nordic can take actions if Orders are entered into the Order Book at prices reflecting the market price before a corporate action or dividend, and when the prices meet the criteria for flushing.

In general, corporate actions and dividends qualify for flushing where:

- A corporate action or dividend is expected to have an impact on the price of the Instrument of at least 10% in either direction on ex-date, based on the closing price the previous trading day.

- Flushing procedure

Nasdaq Nordic intervene in a swift and consistent manner based on the given criteria and make a decision as to whether Orders are to be flushed, to ensure that the integrity of the market remains intact and that the risk of Trades being executed at erroneous prices is minimized.

Nasdaq Nordic will act according to the following flushing procedure:

- All Orders in Order Books qualifying for flushing will be flushed during the Post-Trading Session the trading day before the corporate action or dividend applies (ex-date).

- If there is uncertainty regarding the level of expected theoretical price impact or if it cannot be objectively estimated, Nasdaq Nordic reserves the right not to flush Order Books.

The flushing procedure is applicable for equities listed on Nasdaq Nordic and First North equity markets in Copenhagen, Helsinki, Iceland, Stockholm, Riga, Tallinn and Vilnius.
4.10 Volatility Guards

Nasdaq Nordic Volatility Guards are to reduce the likelihood of trading incidents and to reduce the impact of sudden and extraordinary liquidity during continuous trading.

The Volatility Guard is a trading pause and resumption process designed to restore an orderly market in a single Order Book traded on Nasdaq Nordic in Stockholm, Helsinki, Copenhagen, Iceland, Tallinn, Riga and Vilnius.

The Volatility Guards will be utilized if a proposed Trade deviates too much in percentage from the last sale price (Dynamic Volatility Guard) or from the reference price, which is normally the day’s opening price (Static Volatility Guard).

When the Volatility Guard is triggered, continuous trading is halted followed by an auction period, after which the Order Book moves back to continuous trading.

See Appendix M for more details and configuration.

4.11 Safeguards in opening and closing auctions

Auction safeguards are to limit unexpected impact to opening or closing prices due to erroneous or extraordinary order entries during opening and closing auctions. The auction safeguards will trigger an extension period to the opening and closing auctions in a single Order Book, if the proposed auction price of that Order Book deviates too much in percentage from a reference price at the time of the uncross.

The safeguards in auctions will add time to the auction and provide a validation layer for the price determination, which will ultimately take place at the end of the extension period.

See Appendix U for more details on respective Nasdaq Nordic markets regarding using the safeguards and regarding safeguards configuration.

4.12 Pre Trade Risk Management services (PRM)

Nasdaq Nordic Pre-Trade Risk Management is an optional service providing Members with pre-trade protection.

Using PRM, Members can set various constraints on Orders and control their trading activity and the trading activity of their clients and customers, including prevention of potentially erroneous transactions.

PRM validates Orders entered on PRM - enabled ports (OUCH/FIX) prior to allowing them into the matching engine. PRM is flexible, using a set of parameters to determine if the Order should be allowed into the market. If rejected, PRM provides customers with clearly defined reasons for rejection. Nasdaq Nordic Pre-Trade Risk Management (PRM) service provides:

1. Fat Finger Price Deviation Check
2. Maximum Order Quantity Check
3. Maximum Order Value Check
4. Daily Accumulated Values Checks
5. Restricted Symbol List Check
6. Restricted Market Segment List Check

For a complete description of the PRM service please refer to the Nasdaq Nordic website.

4.12.1 Sponsored Access

Nasdaq Nordic PRM module and its PRM administration interface are particularly suited for Members who offer clients Sponsored Access and it fulfills the requirements for pre-trade control towards their sponsored clients.

For Sponsored Access setup, the PRM service can be combined with the FIX DROP on-disconnect safeguards, where the host would automatically cancel open Orders and reject new ones for individual sponsored clients, if the sponsoring Member disconnects the drop feed used to monitor the client.

4.13 Self-Match Prevention and Self-Trade Prevention

Self-Match Prevention and Self-Trade Prevention are optional functionalities for the Member. The functionalities may be used by Members to avoid unintentional internal trading by preventing certain Member Orders from executing against each other. The aim with the functionalities is to facilitate Members’ compliance and risk management duties and needs.

Self-Match Prevention will be replaced by the Self-Trade Prevention functionality during 2015. During the transition period both functionalities will be available, but only one service at the time can be actively used by the Member.

Please note that the Member is in all situations, even when and if the functionality is applied, responsible for all its Trades and Orders, including not violating the NASDAQ OMX Nordic Member Rules as applicable from time to time and/or applicable legislation.

4.13.1 Self-Match Prevention

The aim of the Self-Match Prevention functionality is to prevent two Orders within the same MPID and User Account (UserID) pair to execute against each other. The service may be activated by configuration.

The functionality will not be offered after April 13, 2015. Please refer to Appendix Q1 for further information.

4.13.2 Self-Trade Prevention

The functionality may be activated on Order instruction level without any configuration. Please refer to Appendix Q2 for further information.
4.14 Sold-Out Buy-Back

Sold-Out Buy-Back is an optional functionality for Market Makers in Warrants, Certificates and Exchange Traded Notes. The aim of the functionality is to protect investors in situations where the Market Maker is no longer able to maintain orders on the sell side due to the instrument being sold out.

Please refer to Appendix T for further information.
5 Registration of Manual Trades

For trading on-exchange, the Member can either make Trades in the Order Book or outside the Order Book. In both these cases the Trades must be made in accordance with the NMR. Manual Trades are Trades, which are made outside the Order Book and reported in accordance with NMR to Nasdaq Nordic.

Manual Trades entered into outside normal opening hours need to be reported/published as soon as possible, or in the morning of the following trading day of the trading venue where the Instrument is listed. Manual Trades reported on the following trading day will be included in the turnover for the reporting day.

For a full description and for details of Trade reporting, please refer to the “Reporting Guideline” document (Members On-Exchange Trade and Members and Non-Members OTC Trade Reporting) as valid from time to time.

5.1 One-Party Matching Trade Reports

Members are able to report each side of a Trade for matching by Nasdaq Nordic. When both parties have reported their side of the Trade and the required data matches, a locked-in Trade will be created.

5.2 Unmatched Trade Reports

Members or Nasdaq Nordic can cancel unmatched Trade Reports. Else, unmatched Trade Reports will be cancelled by the system at the end of the trading day (day of entry of this report).

5.3 Two Party Trade Reports

One Member is able to report both sides of a Trade (internal crossing) when both buyer and seller are represented by the same Member firm or if only one part of the Trade is a Member or if the reporting party is a service provider reporting the Trade on behalf of a Member (according to special exchange registration).

5.4 Break Locked-in Trade / Cancel Trade

The entering trading participants are able to cancel the reported trades within 10 minutes after the reporting (however this must be granted by Nasdaq Nordic). In case of matching Trade reports, both parties must cancel (break) the Trade. In the case of a two party Trade report, only the reporting party needs to send in a cancel (break) request.

Cancellation requests must be submitted in accordance with the NASDAQ OMX Nordic Member Rules (please see chapter 5.7) and the Cancellation Guideline.
5.5 Trade Types

The following Trade Types are supported for Manual Trades:

<table>
<thead>
<tr>
<th>Trade type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Trade</td>
<td>A Trade concluded on standard market terms in respect of price, time of the Trade and with standard delivery and settlement schedule.</td>
</tr>
<tr>
<td>Derivative Related Transaction</td>
<td>Exercise or expiration of options, forwards or futures contracts that imply an exchange of Instruments or a Trade that relates to a derivatives Trade and that forms an unconditional part of a combination together with a derivative Trade.</td>
</tr>
<tr>
<td>Portfolio Trade</td>
<td>A transaction in more than one Instrument where those Instruments are grouped and traded as a single lot against a specific reference price.</td>
</tr>
<tr>
<td>Volume Weighted Average Price Trade</td>
<td>A Trade, which price is based on a volume weighted average of Trades made within pre-defined time period.</td>
</tr>
<tr>
<td>Exchange Granted Trade</td>
<td>A Trade pursuant to an individual or general authorization from Nasdaq Nordic. Settlement dates in the past as well as in the future may be accepted.</td>
</tr>
<tr>
<td>Pre-Opening Trade</td>
<td>A Trade, which is entered into in Pre-Opening on the date of admission to trading of an Instrument (Only applies to Nasdaq Helsinki).</td>
</tr>
<tr>
<td>Non-Standard Settlement</td>
<td>A Trade, which settlement date deviates from the standard delivery and settlement schedule. Settlement date from and including T+0 is accepted.</td>
</tr>
</tbody>
</table>

Note: The price of Standard Trades needs to be within the Volume Weighted Average Spread (VWAS).

The Trade Types below are applied to certain trades made outside the central Order book and are not available for members’ own trade reporting:

<table>
<thead>
<tr>
<th>Trade type Published (not available for trade entry)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Routed Trade</td>
<td>A routed Trade concluded on standard market terms in respect of price, time of the Trade and with standard delivery and settlement schedule. This Trade type cannot be used by the Member, since it is a Trade type that the system will automatically use for the routed Trades executed between the Member and the Introducing Broker.</td>
</tr>
<tr>
<td>Nordic@Mid Trade</td>
<td>A trade made in Nordic@Mid.</td>
</tr>
</tbody>
</table>
5.6 Block Trades

Block trades are Trades considered large in scale compared to the average daily turnover. They are allowed to be reported outside the Volume Weighted Average Spread (VWAS) in the market. The block trade thresholds are:

<table>
<thead>
<tr>
<th>Class in terms of average daily turnover (ADT)</th>
<th>ADT &lt; €500,000</th>
<th>€500,000 ≤ ADT &lt; €1,000,000</th>
<th>€1,000,000 ≤ ADT &lt; €25,000,000</th>
<th>€25,000,000 ≤ ADT &lt; €50,000,000</th>
<th>ADT ≥ €50,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum size of Trade qualifying as large in scale compared with normal market size</td>
<td>€ 50 000</td>
<td>€ 100 000</td>
<td>€ 250 000</td>
<td>€ 400 000</td>
<td>€ 500 000</td>
</tr>
</tbody>
</table>

Table 2 Block Trade Thresholds

Standard Trades in shares below the thresholds in the above table have to be made on or within the Volume Weighted Average Spread (VWAS). The VWAS is the reference price which would have been paid if the Order had been executed in the central Order Book (i.e. would have been the average price if the Orders had been automatically matched). Standard Trades include all Trades made on standard terms, also the ones made above the thresholds in Table 2, and outside the VWAS, if made on standard terms for the specific volume. Although principally the Member needs to make the Trade on or within the Spread or VWAS, when there is no Spread, the Member needs to make the Trade to a price that takes into account the market situation at the time of the Trade.

5.7 Trade publication

For on-exchange Trades, Nasdaq Nordic allows waivers from the principle of immediate publication of a reported Trade

- if the Trade meets the Average Daily Turnover (ADT) criteria set by MiFID and
- if it is a Trade where the Member takes on risk.

A request can be made for a Trade to be deferred a time period in an incoming Trade report. A Trade will be deferred if one of the parties requests the Trade to be deferred.

A deferred publication table as set by MiFID exists in each local currency and should be referred to for deferred publication rules that apply in each country. An example has been included in Appendix E.

Link to ESMA:
http://mifiddatabase.esma.europa.eu/

For further details, including OTC Trade reporting; please refer to the NMR and the “Reporting guideline” document (Members On-Exchange Trade and Members and Non-Members OTC Trade Reporting).
6 Orders

6.1 Order types, Order attributes, validity and priority

The following Order types, Order attributes, validity types (together in NMR also as Order Conditions) and priority orders are available on Nasdaq Nordic for Equities and Related, and for Miscellaneous Markets.

Order Types

1. Limit Order

A Limit Order stipulates a maximum purchase price or minimum selling price. If not fully matched, it is logged in the Order Book in descending buy-price Order or ascending sell-price Order and joins the queue of Orders having the same price according to time priority.

If the price specified by a limit price is not valid according to the allowed tick sizes, it will be rounded to a less aggressive price (default) or rejected if that is preferred by the Member. It will only execute at prices equal to or more generous than its specified limit price.

2. Market Order

A Market Order is an Order to sell or buy an Instrument at the current market price during continuous trading (Trading Hours) with Time-in-Force condition Immediate-or-Cancel (IOC). If used in the auction phase, it ensures participation in the uncross. However, it may not match (partially or fully) in the uncross depending on the market pressure of the Order Book.

The matching logic of the Market Order is that it will hit the opposite side of the book and fill as much as possible at the best price level. Remaining volume will be cancelled, even though more volume is available at less favorable price levels.

To sweep through multiple price levels, a Limit Order can be used, where the limit price crosses the Best Bid Offer of an Order Book (BBO).

Behavior for Routable Market Orders, see Appendix O.

3. Imbalance Order (IOOP, IOSI, and IOOC)

The Imbalance Order is an order type that can be used in the auctions. It accepts the equilibrium price reached, based on Limit Orders and Market Orders in call auction and fills the theoretical imbalance between the surplus and the deficit side. It does not take part in the equilibrium price determination. Imbalance Orders are prioritized among each other according to entry time of the order. Imbalance Orders shall not affect the equilibrium price and shall be executed only against any surplus imbalance and not against each other.
Matching at Nasdaq Nordic follows price-internal-display-time or price-display-time. The order type is not part of the prioritization. However, the Imbalance Order does imply a certain (i.e. low) priority due to its nature and it is the only exception to the rule. All other Orders will be prioritized either in price-internal-display-time order or in price-display-time order.

Imbalance Orders cannot be used during Halt auctions.

Imbalance Orders come in three flavors:

**Imbalance-on Open Orders (IOOP)**
Provides liquidity intended to offset Orders during the opening cross. Imbalance-on Open Orders can only be Limit Orders. Imbalance-on Open buy/sell Orders only execute at cross of opening call.

**Imbalance-on Scheduled Intraday Orders (IOSI)**
Provides liquidity intended to offset Orders during the scheduled intraday cross. Imbalance-on Scheduled Intraday Orders can only be Limit Orders. Imbalance-on Scheduled Intraday buy/sell Orders only execute at cross of scheduled intraday call.

**Imbalance-on-Close Orders (IOOC)**
Provides liquidity intended to offset Orders during the closing uncross. Imbalance-on Close Orders can only be Limit Orders. Imbalance-on Close buy/sell Orders only execute at uncross of closing call.

**Order Attributes**

1. **Reserve Order (Iceberg order)**

In a Reserve Order, a certain portion of the total volume of an Order is not displayed in the Order Book. Both the displayed (peak) volume and non-displayed portions of the Reserve Order are available for potential execution against incoming Orders. The non-displayed portion is included in the Order Book dissemination of Net Order Imbalance during the imbalance dissemination preceding the auction.

The peak volume is the same when the order is initialized and later being replenished, unless the peak volume is randomized. The volume will be replenished when the peak is fully filled. It is possible to randomize the initial and subsequent peak volumes by submitting an optional range. If the range is set to 200 and the peak volume is set to 1000, the displayed portion will randomly shift between 800 and 1200. E.g. 851, 936, 1156, 1000 etc.

All changes on the Order including changes to the volume (both visible and total volume) of a Reserve Order are accomplished using an Order cancellation followed by an Order insert. In addition, when the displayable portion of the Order is completely executed within the Order Book, the non-displayable portion of the Order is decremented (retaining time priority) and a new displayable Order is sent to the Order Book (with new time priority).
The technical implementation for some Order functionality means that the functions are offered on a best effort basis. This means that the execution may be subject to so called 'race conditions' and that the outcome may be impacted by other (incoming) Orders. E.g. the updating of open or displayed volume of a Reserve Order is done at a time when other Orders may be entering the Order Book, thus leaving the Order priority of the update non-deterministic.

A partially matched Reserve Order that is carried over (Time In force = Good till Cancelled (GTC)) will automatically get its original displayed quantity when re-entering the Trading System the next trading day.

2. Pegged Order

Pegged Orders allow clients to price Orders relative to the current market price for an Instrument.

Offsets allow a client to peg an Order with an incremental difference (tick) from the Best Bid Offer of an Order Book (BBO) and can be either positive (higher price) or negative (lower price).

There are three types of Pegged Orders:
- Primary Peg: Peg an Order to the same side of the BBO.
- Market Peg: Peg an Order to the opposite side of the BBO.
- Mid-point Peg: Peg an Order to the mid-point of the BBO.

Pegged Orders have their price automatically adjusted by the Trading System in response to changes in BBO prices. A Pegged Order may specify a limit price beyond which the Order shall not be executed (protection price). Mid-point Pegged Orders will never be displayed. It will only use prices available in the relevant tick size table, i.e. the Mid-point Peg may round, but always to a less aggressive price. A new timestamp is created for a Pegged Order each time it is automatically adjusted.

Technical implementation means that Pegged Order updates are executed via Order cancel/insert, thus creating a new timestamp each time a Pegged Order is automatically adjusted. This means that the execution may be subject to so called 'race conditions' where original Order time priority cannot be guaranteed.

In order to secure that a Pegged Order do not peg towards other Pegged Orders the Trading System automatically assures that Pegged Orders only refers to the displayed Orders constituting the BBO seen in the public data.

The types of pegging and the incremental difference from the BBO may be used in the following fashion for Bids and Offers.

<table>
<thead>
<tr>
<th>Pegged Orders</th>
<th>Bids: Negative price difference</th>
<th>Zero difference</th>
<th>Bids: Positive price difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Offers: Positive price</td>
<td></td>
<td>Offers: Negative price</td>
</tr>
</tbody>
</table>

33(125)
<table>
<thead>
<tr>
<th>Peg Type</th>
<th>Displayed and Non-displayed Orders</th>
<th>Displayed and Non-displayed Orders</th>
<th>Non-displayed Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Peg</strong></td>
<td>Displayed and Non-displayed Orders</td>
<td>Displayed and Non-displayed Orders</td>
<td>Non-displayed Order</td>
</tr>
<tr>
<td><strong>Market Peg</strong></td>
<td>Displayed and Non-displayed Orders</td>
<td>Available, but converted to an IOC</td>
<td>Available, but converted to an IOC</td>
</tr>
<tr>
<td><strong>Mid-point Peg</strong></td>
<td>Non-displayed Order</td>
<td>Non-displayed Order</td>
<td>Available, but converted to an IOC</td>
</tr>
</tbody>
</table>

*Capped by the current BBO means that if a displayed Market Peg would end up inside the spread it will be automatically adjusted to the best bid or offer. This means that the actual offset may be larger than what was sent in originally. This applies both when the Order is first submitted and when the BBO changes.

For example, a bid with a Market Peg and a negative price difference of 1 tick (i.e. -1), can either be displayed or non-displayed and will be entered into the Order Book at one tick below the current best offer.

Another example is a Pegged Order that is pegged to a price less aggressive than the BBO. This means that if the BBO is 100-102, a primary Pegged bid Order can put itself on best bid minus X ticks. In this example say 4 ticks, resulting in a Pegged Order with a price of 99 in this case (tick size in this example is 0,25).

A Non-displayed Pegged Order must meet the large in scale criteria’s as any other Non-displayed Order. See below. With any price or volume update the Order will be validated accordingly. Non-displayed Pegged Orders that do not meet the criteria’s will automatically be converted to an IOC (default behavior), or rejected if that is preferred by the Member.

### 3. Minimum Quantity Order

Orders can be entered for execution with a minimum share quantity. Minimum Acceptable Quantity (MAQ) Orders are only accepted during continuous trading with a time-in-force IOC (no other Time in Force will be allowed). Adding Minimum Quantity condition to an Order and setting this to equal the volume gives the equivalent of a Fill-or-Kill (FOK). Minimum quantity cannot be combined with any other Order attribute.

MAQ Orders can participate in the auctions with the MAQ requirement temporarily Waived. That is, MAQ Orders can participate in both auctions and the continuous market; however, the “MAQ requirement” will only be enforced during the continuous market.

MAQ Orders can match against resting orders provided that the net volume executed surpasses the MAQ condition. This means that a MAQ Order can be executed against one or several Orders.
MAQ is also allowed on Non-displayed Orders. Here the Non-displayed Order would still need to meet large in scale (LIS) criteria, but the participant would be able to state that the Order should only match if the MAQ criteria is met or exceeded. An Order will not execute during continuous trading unless the MAQ criteria is met. Participants would still be able to enter a Non-displayed Order without a MAQ if desired. See Appendix L for more details.
4. Non-displayed Order (Hidden order)

Non-displayed Limit Orders are hidden from other participants than the participant entering it. The Order stipulates a maximum purchase price or minimum selling price. If not fully matched, it is logged in the Order Book in descending buy-price Order or ascending sell-price Order and joins the queue of Orders having the same price according to time priority. Visibility is ranked ahead of time priority. A displayed Order entered at a later time is ranked ahead of an earlier Non-displayed Order (assuming both Orders entered at the same price).

Non-displayed Order has to be large in scale (LIS) at the time of entry. If the volume was reduced due to a partial execution, the Order remains non-displayed even when smaller than large in scale (LIS). Large in scale (LIS) is defined as specified in the table below:

<table>
<thead>
<tr>
<th>Class in terms of average daily turnover (ADT)</th>
<th>ADT &lt; €500,000</th>
<th>€500,000 ≤ ADT &lt; €1,000,000</th>
<th>€1,000,000 ≤ ADT &lt; €25,000,000</th>
<th>€25,000,000 ≤ ADT &lt; €50,000,000</th>
<th>ADT ≥ €50,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum size of Order qualifying as large in scale compared with normal market size</td>
<td>€ 50 000</td>
<td>€ 100 000</td>
<td>€ 250 000</td>
<td>€ 400 000</td>
<td>€ 500 000</td>
</tr>
</tbody>
</table>

Non-displayed Orders that do not meet the large in scale (LIS) criteria will automatically be converted to an IOC (default behavior), or rejected if that is preferred by the Member. This validation will also be done when performing a Cancel/Replace on the Order.

Link to ESMA:
http://mifiddatabase.esma.europa.eu/

The only other attribute that can be used in combination with the Non-displayed attribute is pegging. In general, the following combinations of Order attributes are possible.

<table>
<thead>
<tr>
<th></th>
<th>Reserve</th>
<th>Pegged</th>
<th>Minimum qty</th>
<th>Non-displayed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve</td>
<td>-</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pegged</td>
<td>x</td>
<td>-</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Minimum qty</td>
<td>x</td>
<td>-</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Non-displayed</td>
<td>x</td>
<td>x</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

5. Nordic@Mid Order

Nordic@Mid is a separate continuous crossing for non-displayed mid-point pegged Orders and should be viewed as a complement to the central Order Book in Nasdaq Nordic cash equities.

For more information on the service, please refer to Appendix N.

6. Market Maker Order
A Market Maker Order (MMO) cannot be matched, and create a Trade, unless certain conditions are fulfilled. MMOs will be offered to Market Makers on warrants and certificates.

For more information on the service, please refer to Appendix P.

7. Top Of Book Order

Top Of Book (“TOP”) Order is an order condition the Member can use in case certain conditions are fulfilled. TOP Order shall be accepted and added to the Order Book if its limit price is narrowing but not crossing the current Order Book spread. The TOP Order may also be accepted when its limit price is equal to the current Order Book spread if certain criteria are met.

For more information on the service, please refer to Appendix R.

Time in Force (Validity types)

1. Immediate-or-cancel (IOC)
   If an IOC (also known as Fill and Kill (FAK)) Order is not matched immediately into Trade(s) in full or in part upon entry, the remaining part of the Order is cancelled. IOC Orders can be used during continuous trading and auctions. If Minimum Acceptable Quantity (MAQ) is specified at a level equal to the total Order quantity within an IOC order, the Order is effectively handled as a Fill-or-Kill (FOK) Order.

2. Good-till-market close
   Order is valid until the close.

3. Good-till-cancelled (GTC)
   Order is valid until it is cancelled. If the Order is left overnight, it will be inserted again in the Order Book the next morning at open. The GTC Orders will retain their original chronological order based on original entry time into the Trading System. If the Order is left for several days, the Orders will retain their original chronological order.

4. Good-till-time (GTT)
   The Order is valid until a specified time of current day.

5. Day Order
   A Day Order is active for the trading day and any unexecuted portion will be cancelled immediately after the closing cross. Presently, the meaning of Good-till-market close and Day Orders is identical.

For those issues that have no closing auction, any unexecuted portion will be cancelled immediately after the move to Closed.

Other conditions

On-open Orders
On-open Orders specifically request execution at the opening price of the opening call. They can be specified as market priced (MOO) or limit priced (LOO) Orders. MOO and LOO Orders can be entered during possible intra-day halt actions as well.
"Limit On Open Order" or "LOO" shall mean an Order to buy or sell at a specified price or better that is to be executed only during the Opening Call. LOO Orders will execute only at the price determined by the Opening Call.

"Market on Open Order" or "MOO" shall mean an Order to buy or sell at the market that is to be executed only during the Opening Call. MOO Orders will execute only at the price determined by the Opening Call.

As the definition of a Market Order is to price itself aggressively enough to put itself ahead of any competing limit order, the result is that the Market Order will always have the highest priority when allocating matched shares in the uncross of the call.

Imbalance on open Orders, see section 6.1.

**On-scheduled intraday Orders**
On-scheduled intraday Orders are relevant only for market segments comprising the Scheduled Intraday Auction, see Appendix S. Such orders specifically request execution at the price determined in the scheduled intraday call. They can be specified as market priced (MOS) or limit priced (LOS) Orders.

"Limit On Scheduled Intraday Order" or "LOS" shall mean an Order to buy or sell at a specified price or better that is to be executed only during the Scheduled Intraday Call. LOS Orders will execute only at the price determined by the Scheduled Intraday Call.

"Market on Scheduled Intraday Order" or "MOS" shall mean an Order to buy or sell at the market that is to be executed only during the Scheduled Intraday Call. MOS Orders will execute only at the price determined by the scheduled Intraday Call.

As the definition of a Market Order is to price itself aggressively enough to put itself ahead of any competing limit order, the result is that the Market Order will always have the highest priority when allocating matched shares in the uncross of the call.

Imbalance on scheduled intraday Orders, see section 6.1.

**On-close Orders**
On-close Orders specifically request execution at the closing price of the closing call. They can be specified as market priced (MOC) or limit priced (LOC) Orders.

"Limit On Close Order" or "LOC" shall mean an Order to buy or sell at a specified price or better that is to be executed only during the Closing Call. LOC Orders will execute only at the price determined by the Closing Call.

"Market on Close Order" or "MOC" shall mean an Order to buy or sell at the market that is to be executed only during the Closing Call. MOC Orders will execute only at the price determined by the Closing Call.
As the definition of a Market Order is to price itself aggressively enough to put itself ahead of any competing limit order, the result is that the Market Order will always have the highest priority when allocating matched shares in the uncross of the call.

Imbalance on close Orders, see section 6.1.

6.2 Order modification

The priority of an Order is retained if the volume is reduced. Existing Orders cannot be increased in volume without losing time priority but can of course be cancelled and replaced with a new Order with new time priority.

NB. All Reserve Order updates are always executed via Order cancel/insert, thus creating a new time priority. A new timestamp is created for the replenished portion of the Order each time it is replenished from reserve, while the reserve portion retains the time-stamp of its original entry.

6.3 Order price

If a price is needed, it is expressed in monetary amount e.g. SEK, EUR. Pegged Orders and Market Orders do not include a numeric price value.

The Trading System is designed to accept a minimum price of 0.0002.

Price thresholds in Norwegian shares

Price thresholds are to reduce the likelihood of off-priced orders matching. Price thresholds prevent order entry, if the order price deviates more than a percentage from a reference price in a single Order Book.

Price thresholds and reference price are applied for Norwegian shares traded on Nasdaq Stockholm and First North Stockholm. Last sale price from Oslo Børs automatch or auction during the trading day is used as a reference price. Orders that at the time of order entry deviate more than the percentage from reference price in below table will be rejected.

<table>
<thead>
<tr>
<th>Norwegian share</th>
<th>Before Oslo Børs close</th>
<th>After Oslo Børs close</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Nasdaq Stockholm</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>On First North Stockholm</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Nasdaq Nordic holds the right to apply deviating thresholds.

6.4 Tick sizes

Tick size is the smallest allowed price movement and is thereby also the smallest possible difference between the buy and sell price in a share, “minimum spread”. Only very liquid shares are usually traded on the minimum spread.

Example of the tick sizes can be found in Appendix F. Please refer to the Nasdaq Nordic Website for current tables.
Given the tick size specifications, it is worth noting that Trades will be displayed with four decimals (five is possible on Manual Trades).

If the price specified by a limit price is not valid according to the allowed tick sizes, it will be rounded to a less aggressive price (default) or rejected if that is preferred by the Member.

### 6.5 Trading capacity information

When a Member enters an order, it must also indicate the party on whose behalf such Order is given. The trading capacity is expressed with an owner category. Owner category must also be given when reporting Manual Trades.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Orders placed and trades conducted on behalf of one or more clients, e.g. in an agency capacity.</td>
</tr>
<tr>
<td>Own Account</td>
<td>Orders placed and trades executed in a proprietary capacity.</td>
</tr>
<tr>
<td></td>
<td>The capacity code should be used if the member has an actual and real price risk, but not when the price risk is deemed to be theoretical.</td>
</tr>
<tr>
<td>Market Maker</td>
<td>When trading takes place under a market making undertaking, for example as a Liquidity Provider.</td>
</tr>
<tr>
<td>Issuer Holding</td>
<td>When the client for whom trading takes place is the issuer of the financial instruments.</td>
</tr>
<tr>
<td>Issue Price Stabilization</td>
<td>Trades executed in the context of initial public offerings in order to support the market price for a predetermined time.</td>
</tr>
<tr>
<td>Riskless principal</td>
<td>Orders entered and trades executed in a principal capacity, but where there is an agreement by which executions or positions following executions are passed on to a client by accumulated transactions, back to back transactions or a derivative, whereas the member firm is not exposed to any price risk in the trading.</td>
</tr>
</tbody>
</table>
7 Smart Order Routing

Nasdaq Nordic offers Smart Order Routing to Away Markets trading Nordic shares. The objective is to provide Smart Order Routing to access the Away Markets while mitigating both transaction and post-Trade costs to the Member.

The requirements for Smart Order Routing (membership, technology and infrastructure) are all part of the offering. When a Routable Order is sent to Nasdaq Nordic, it will be managed according to the submitted Smart Order Routing strategy.

Smart Order Routing is optional and a separate Application form needs to be signed by the Member. For further details, please refer to Appendix O.
<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Change Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 3, 2008</td>
<td>1.0</td>
<td>Initial version for Nasdaq Nordic</td>
</tr>
<tr>
<td>November 17, 2008</td>
<td>1.0.1</td>
<td>New opening and closing call design</td>
</tr>
<tr>
<td>December 23, 2008</td>
<td>1.0.2</td>
<td>Minor updates and clarifications</td>
</tr>
<tr>
<td>February 13, 2009</td>
<td>1.0.3</td>
<td>Discretionary Orders to be implemented in a later phase ETC currently has no active Order Books</td>
</tr>
<tr>
<td>March 12, 2009</td>
<td>1.0.4</td>
<td>OMX STO Equities NOK added in schedule Detail in Appendix D corrected Discretionary Order removed completely since they are not allowed by the authorities</td>
</tr>
<tr>
<td>May 19, 2009</td>
<td>1.0.5</td>
<td>Minor updates and clarifications. Pegging logics further described</td>
</tr>
<tr>
<td>June 1, 2009</td>
<td>1.0.6</td>
<td>Market Order logics explained. Icelandic times updated.</td>
</tr>
<tr>
<td>September 7, 2009</td>
<td>1.0.7</td>
<td>Norwegian schedule updated. All IOC's are not displayed in market by Order in pre-open and pre-close Non-displayed Orders that do not meet the LIS criteria will automatically be converted to an IOC or rejected Price validation updated. Pegged and Reserve Orders clarified Other minor updates in text and examples</td>
</tr>
<tr>
<td>November 2, 2009</td>
<td>1.0.8</td>
<td>Helsinki convertibles not to migrate Clarification that Imbalance Orders not to participate in forming the equilibrium price Pegged Orders clarified that a displayed Market Peg would end up inside the spread it will be automatically adjusted to the best bid or offer Off tick size priced Orders can be rounded or rejected Call only Orders not available as a specific condition. It is however possible to enter On-open, On-close and in case of an halt auction Orders only eligible for that event Tick size tables updated to reflect latest changes Other minor updates in text and examples</td>
</tr>
<tr>
<td>January 21, 2010</td>
<td>1.1</td>
<td>Icelandic trading schedule updated. Closing auction at CET 16:30. Other minor clarifications and editorial in text and examples:</td>
</tr>
<tr>
<td>Date</td>
<td>Revision</td>
<td>Change Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| February 17, 2010  | 1.2      | - Clarifications:  
Stockholm and Helsinki Warrants, Stockholm and Helsinki Equity rights, subscr.opt, Convertibles, Fund Units moves into Post-Trade at CET 17:25 (no auction)  
Remaining Day Orders in Order Books without closing auction are being cancelled when the Market Segment moves into closed |
| April 20, 2010     | 1.3      | - Change of Tick size table for Danish Certificates (effective by March 22, 2010)  
Support for Minimum Acceptable Quantity (MAQ) on Non-displayed Orders  
Support for supervisory cancel message at Order Book expiration |
| May 31, 2010       | 1.4      | Clarification on Pre-Trade Risk Management services and Smart Order Routing  
New TZ table for large cap |
| June 10, 2010      | 1.5      | Removal of closing auction for Danish warrants and certificates |
| August 16, 2010    | 1.6      | Updates to the chapter on Pre-Trade Risk Management (PRM) and a new section on Volatility Guards. References to ATP listen removed. |
| October 11, 2010   | 1.7      | Updates on  
- Nordic@Mid order  
- Smart Order Routing  
- Trading calendar for 2011-2012  
- Baltic Tick size updated  
- First North Tick size tables added |
<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Change Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 11, 2010</td>
<td>1.7</td>
<td>Clarifications on Nordic@Mid and pegged Orders functionality regarding automatic Order price update.</td>
</tr>
<tr>
<td>November 19, 2010</td>
<td>1.8</td>
<td>Update to Appendix N on post-Trade transparency for Nordic@Mid. OMXC20 will have post-Trade transparency.</td>
</tr>
<tr>
<td>January 24, 2011</td>
<td>1.9</td>
<td>Clarification in section 4.5 about the Post-Trading Session. Updates and clarifications on Appendix F and I on tick sizes for Equities SEK, Most Liquid, XHEL Equities EUR, FESE2 and XCSE Equities DKK, FESE2 and on non-trading days.</td>
</tr>
<tr>
<td>January 24, 2011</td>
<td>1.9</td>
<td>Nordic Order Routing is approved by the Authorities and earlier disclaimer removed.</td>
</tr>
<tr>
<td>February 28, 2011</td>
<td>2.0</td>
<td>Nordic Order Routing clarifications like information on valid Order types and time in force. New order type Market Maker Order is introduced with an associated Appendix P. Updated tick size table for OMX HEL Equity Subscriptions rights.</td>
</tr>
<tr>
<td>March 21, 2011</td>
<td>2.1</td>
<td>Updates to Smart Order Routing on the new strategy “STGY” and GTC support. New trading schedule for warrants trading in the Baltics (from April 4). Updates to the PRM service.</td>
</tr>
<tr>
<td>April 1, 2011</td>
<td>2.2</td>
<td>Updates to Tick sizes FESE 2 effective April 1, 2011 New Tick size for currency based ETFs effective April 4, 2011 New First North Finland effective April 4, 2011</td>
</tr>
<tr>
<td>May 23, 2011</td>
<td>2.3</td>
<td>Updates to Nordic @Mid and trading in Norwegian shares. New Nordic Order Routing strategies. Added information on Sponsored access in the PRM section Updated TZ tables</td>
</tr>
<tr>
<td>June 20, 2011</td>
<td>2.4</td>
<td>New Trade type for routed Trades</td>
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<td>June 30, 2011</td>
<td>2.5</td>
<td>Correction of TZ table for UTC, DKK that was missing Clarifications</td>
</tr>
<tr>
<td>August 22, 2011</td>
<td>2.6</td>
<td>Clarifications in certain definitions. Changed behavior of a Routable Market Order.</td>
</tr>
<tr>
<td>Date</td>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>February 1, 2012</td>
<td>2.7</td>
<td>Updated trading calendar for Latvia. E.g. 2012-11-19 will be a non-trading day. Official closing price in Copenhagen to be aligned with other markets. Minor clarifications on TIF combinations. ICB Company classification standard.</td>
</tr>
<tr>
<td>March 5, 2012</td>
<td>2.8</td>
<td>Updates to Nordic @ Mid and trading statistics.</td>
</tr>
<tr>
<td>April 2, 2012</td>
<td>2.9</td>
<td>Self-Match Prevention Clarification on Nordic@Mid</td>
</tr>
<tr>
<td>November 12, 2012</td>
<td>2.12</td>
<td>Updated Tick size table for Norwegian index Funds. Top Of Book order condition.</td>
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<td>February 1, 2012</td>
<td>2.14</td>
<td>NMID routing strategy</td>
</tr>
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<td>February 18, 2013</td>
<td>2.15</td>
<td>Enhancements to the TOP Order</td>
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<tr>
<td>March 19, 2013</td>
<td>2.16</td>
<td>Updates to tick size table Index funds, NOK Other minor clarifications</td>
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<tr>
<td>May 6, 2013</td>
<td>2.16b</td>
<td>Change in trading sessions for Norwegian shares and ETFs. Additional tick size table for Nasdaq Stockholm Certificates and ETNs</td>
</tr>
<tr>
<td>June 10, 2013</td>
<td>2.17</td>
<td>Routing to multiple Away markets in parallel Default routing strategy Minor general clarifications</td>
</tr>
<tr>
<td>September 26, 2013</td>
<td>2.18</td>
<td>Actively-Managed Funds: addition of market segments within Trading session and Trading hours tables and amendment to tick size table naming.</td>
</tr>
<tr>
<td>December 2, 2013</td>
<td>2.19</td>
<td>Updated with the new auction Scheduled Intraday Auction. Trading Capacities explained.</td>
</tr>
<tr>
<td>December 17, 2013</td>
<td>2.20</td>
<td>Updated Non-Standard Settlement trade type for Nasdaq Iceland</td>
</tr>
<tr>
<td>January 9, 2014</td>
<td>2.21</td>
<td>Change in Member’s own Orders definition</td>
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</table>

45(125)
<table>
<thead>
<tr>
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<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 27, 2014</td>
<td>2.22</td>
<td>Updates to Nordic@Mid on minimum order values</td>
</tr>
<tr>
<td>February 17, 2014</td>
<td>2.23</td>
<td>Clarifications on Cancel of Trade reports. Update on Nordic@Mid covering First North markets</td>
</tr>
<tr>
<td>March 10, 2014</td>
<td>2.24</td>
<td>New order routing strategy “DCAP” Changes to DNGY logics</td>
</tr>
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<td>March 24, 2014</td>
<td>2.25</td>
<td>Changes to the post-trade counterparty visibility</td>
</tr>
<tr>
<td>May 5, 2014</td>
<td>2.26</td>
<td>Note Codes are updated. Changes to reactive routing strategy logics.</td>
</tr>
<tr>
<td>June 2, 2014</td>
<td>2.27</td>
<td>Updates to Nordic Order Routing reject handling and Introducing Brokers risk checks.</td>
</tr>
<tr>
<td>June 9, 2014</td>
<td>2.28</td>
<td>New tick size tables for shares trading below 1 EUR/SEK/ISK and name changes for two existing tables</td>
</tr>
<tr>
<td>June 16, 2014</td>
<td>2.29</td>
<td>Update to the voluntary post-trade anonymity</td>
</tr>
<tr>
<td>July 8, 2014</td>
<td>2.30</td>
<td>Update to “DCAP” routing strategy to cover all Nasdaq Nordic markets</td>
</tr>
<tr>
<td>September 1, 2014</td>
<td>2.31</td>
<td>Updates to thresholds for Icelandic Volatility Guards. Clarification on FE note code.</td>
</tr>
<tr>
<td>September 22, 2014</td>
<td>2.32</td>
<td>Update to Note Codes, maximum Order value allowed by Introducing broker and Sold-Out Buy-Back description added.</td>
</tr>
<tr>
<td>September 29, 2014</td>
<td>2.33</td>
<td>Update to MAQ and tick size table for shares trading below 1 DKK and name change for one existing table.</td>
</tr>
</tbody>
</table>
| December 1, 2014  | 2.34    | • Added new sections:  
|                   |         | - Settlement schedule  
|                   |         | - Safeguards in opening and closing auctions and Appendix U  
|                   |         | - Trade reporting of manual on-exchange trades:  
|                   |         |   ○ Accept settlement dates in the past  
|                   |         |   ○ Accept trade type Non-standard Settlement on all markets  
|                   |         | • Removed STGV routing strategy.                                          |
| December 8, 2014  | 2.35    | • Introduction of Self-Trade Prevention  
|                   |         | • Randomization of the peak volume on order condition Reserve Order (a.k.a. Iceberg order) |
| January 19, 2015  | 2015:01 | • Addition of Stop code content for Trading Halt- Knock-Out and clarifications to Trading Halt section |
| February 16, 2015 | 2015:02 | Appendix S updated due to Danish and Swedish Mid Cap shares being CCP cleared |

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**Nasdaq**
Appendix A: Call examples

Rule 1. Maximum tradable quantity
The following examples illustrate the case when the maximum tradable quantity principle is used in price determination.

Example 1:
Assume Stock E has the following characteristics:
Price tick: 0.10
Assume the following aggregated book:

<table>
<thead>
<tr>
<th>Buy Cum</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Limit Qty</th>
<th>OC / OO</th>
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<tbody>
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<td>-16000</td>
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</tr>
<tr>
<td>5,000</td>
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<td>6,000</td>
<td>5000</td>
<td>-1000</td>
<td></td>
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<td></td>
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</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

OC / OO are On-Close or On-Open conditioned Orders.
Limit Qty is the regular Limit Order that will be part of calls and the continuous matching.
In this example the maximum tradable volume is at 54.30 which is selected as Equilibrium Price (EP)
**Imbalance information**

Normal Order Imbalance Indicator NOII is disseminated during the last minutes of all calls containing information about the indicative EP. The NOII information in this case would be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Quantity</td>
<td>5 000</td>
<td>Total paired Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Quantity</td>
<td>1 000</td>
<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>Sell</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>54.30</td>
<td></td>
</tr>
<tr>
<td>Best Bid Price</td>
<td>54.30</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>54.30</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
<td>5 000</td>
<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
<td>6 000</td>
<td>Aggregated volume at Best Ask</td>
</tr>
</tbody>
</table>

**Order transfer**

Unmatched On-Open Orders will not enter the continuous market.
**Rule 2. Minimum imbalance** (The following examples illustrate the case when the minimum imbalance principle is used in price determination (rule 2)).

**Example 2:**

<table>
<thead>
<tr>
<th>Buy Cum</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
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<th>Imbalance Qty</th>
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</thead>
<tbody>
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<tr>
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</tr>
<tr>
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<td>-</td>
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<td>500</td>
<td>129000</td>
<td></td>
</tr>
</tbody>
</table>

The tradable volume is equal on 54.20 and 54.10 but the imbalance smaller at 54.20.

**Imbalance information:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Quantity</td>
<td>3 500</td>
<td>Total paired Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Quantity</td>
<td>1 500</td>
<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>Buy</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>54.20</td>
<td></td>
</tr>
<tr>
<td>Best Bid Price</td>
<td>54.20</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>54.20</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
<td>5 000</td>
<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
<td>3 500</td>
<td>Aggregated volume at Best Ask</td>
</tr>
</tbody>
</table>
Rule 3. Market pressure principle

The following example illustrates the case when there are several price levels that fulfill the maximum volume and minimum imbalance criteria and the surpluses are the same. In this case, the price level that would leave volume is the equilibrium price - market pressure.

Example 3:

<table>
<thead>
<tr>
<th>Buy</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask</th>
<th>Paired</th>
<th>Imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td>MP</td>
<td></td>
<td></td>
<td></td>
<td>116.500</td>
<td>0</td>
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<td></td>
<td>-</td>
<td>0</td>
<td>129000</td>
</tr>
</tbody>
</table>

Both maximum tradable volume and imbalance is equal for 54.20 and 54.10, as there is a bid market pressure the highest price will be selected.

Imbalance information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Quantity</td>
<td>3 500</td>
<td>Total paired Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Quantity</td>
<td>1 500</td>
<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>Buy</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>54.20</td>
<td></td>
</tr>
<tr>
<td>Best Bid Price</td>
<td>54.20</td>
<td>In case the market is not crossed this will show the spread, in this case shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>54.20</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
<td>5 000</td>
<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
<td>3 500</td>
<td>Aggregated volume at Best Ask</td>
</tr>
</tbody>
</table>
Rule 4. Prices that are equally close to zero imbalance

If there are several price levels that fulfill the maximum tradable and minimum imbalance criteria and

- the surpluses have different signs (positive and negative) or,
- the is more than one price level that have 0 imbalance,

The equilibrium price is chosen to be the mean price between the highest price level lowest price level from step 3. If price is off-tick it will be rounded to the closest tick, if the price is equally close to 2 ticks then it will be rounded down.

Example 4a – Imbalance shift signs:

<table>
<thead>
<tr>
<th>Buy Cum</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask Cum</th>
<th>Paired All</th>
<th>Imbalance All</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>MP</td>
<td>-</td>
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<td>-</td>
<td>117,000</td>
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<td>-117000</td>
</tr>
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<td>-</td>
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<td>100000</td>
<td>-</td>
<td>-</td>
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<tr>
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<td>-</td>
<td>-</td>
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<td>10000</td>
<td>-</td>
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<tr>
<td>1,500</td>
<td>1500</td>
<td>1500</td>
<td>1,500</td>
<td>54.10</td>
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<td>1000</td>
<td>1000</td>
<td>4,000</td>
<td>1500</td>
<td>-2500</td>
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<tr>
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<td>500</td>
<td>2,000</td>
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<td>-1000</td>
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<td>1000</td>
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<td>53.90</td>
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<td>2000</td>
<td>2000</td>
<td>2,000</td>
<td>2000</td>
<td>4000</td>
</tr>
<tr>
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<td>4000</td>
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<tr>
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</tr>
<tr>
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<td>18,000</td>
<td>53.60</td>
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<td>-</td>
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<td>10000</td>
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<td>-</td>
<td>-</td>
<td>0</td>
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<td></td>
</tr>
</tbody>
</table>

In this case the uncross price is the mean 54.00 and 53.90 which is equal to 53.95, since this equally close valid ticks it will be rounded down to 53.90
**Imbalance information**

Market by Order is disseminated and will show only Orders from the continuous book. The Normal Order Imbalance Indicator NOII includes information implying the hidden on-close quantity. The NOII information in this case would be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Quantity</td>
<td>2 000</td>
<td>Total paired Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Quantity</td>
<td>1 000</td>
<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>Buy</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>53.90</td>
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</tr>
<tr>
<td>Best Bid Price</td>
<td>53.90</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>53.90</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
<td>3 000</td>
<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
<td>2 000</td>
<td>Aggregated volume at Best Ask</td>
</tr>
</tbody>
</table>
### Example 4b– Range of zero imbalances:

<table>
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<tr>
<th>Buy Cum</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask Cum</th>
<th>Paired Imbalance</th>
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</tr>
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</table>

In this case the uncross price is the mean 54.00 and 53.80 which is equal to 53.90, since this on tick EP will be 53.90

### Imbalance information:

<table>
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<tr>
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<tbody>
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<td>Paired Quantity</td>
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<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>Buy</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>53.90</td>
<td></td>
</tr>
<tr>
<td>Best Bid Price</td>
<td>53.90</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>53.90</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
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<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
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<td>Aggregated volume at Best Ask</td>
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</table>
Example 5 – NOII in an uncrossed market:
Assume the following book:

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<th>Buy Cum</th>
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<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask Cum</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<td></td>
<td></td>
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<td>0</td>
<td>-116000</td>
</tr>
<tr>
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<td>-</td>
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<td>-</td>
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<td>0</td>
<td>-6000</td>
</tr>
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<td>2.00</td>
<td>0</td>
<td>-2000</td>
</tr>
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<td>-</td>
<td>-</td>
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<td>0</td>
</tr>
<tr>
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<td>6000</td>
</tr>
<tr>
<td>109,000</td>
<td>10000</td>
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<td>53.60</td>
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<td>-</td>
<td>0</td>
<td>9000</td>
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<tr>
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<td></td>
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<td>1000</td>
<td>-</td>
<td>0</td>
<td>109000</td>
</tr>
</tbody>
</table>

Imbalance information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired Quantity</td>
<td>0</td>
<td>Total paired Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Quantity</td>
<td>0</td>
<td>Imbalance Qty at Equilibrium Price, including all orders and hidden qty.</td>
</tr>
<tr>
<td>Imbalance Direction</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Equilibrium Price (EP)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Best Bid Price</td>
<td>53.70</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Ask Price</td>
<td>54.10</td>
<td>In case the market is not crossed this will show the spread, in this case it shows the EP.</td>
</tr>
<tr>
<td>Best Bid Qty</td>
<td>6,000</td>
<td>Aggregated volume at Best Bid</td>
</tr>
<tr>
<td>Best Ask Qty</td>
<td>2,000</td>
<td>Aggregated volume at Best Ask</td>
</tr>
</tbody>
</table>
The NOII information then indicates the spread in the market including hidden volume.

Example 6 - Share allocation
Similar to example 1 the aggregated book is based on the following Order Book:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Time</th>
<th>Volume</th>
<th>Price</th>
<th>Ask</th>
<th>Volume</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>b1</td>
<td>0(3000)</td>
<td>54.30</td>
<td>53.80</td>
<td>0(1000)</td>
<td>a4</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>b5</td>
<td>0(2000)</td>
<td>54.30</td>
<td>54.10</td>
<td>0(500)</td>
<td>a1</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>b2</td>
<td>0(1500)</td>
<td>53.90</td>
<td>54.10</td>
<td>0(500)</td>
<td>a3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>b4</td>
<td>0(2500)</td>
<td>53.90</td>
<td>54.20</td>
<td>0(1000)</td>
<td>a2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>b3</td>
<td>0(500 )</td>
<td>53.80</td>
<td>54.30</td>
<td>350</td>
<td>a5</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>B6</td>
<td>0(2500)</td>
<td>53.80</td>
<td>54.30</td>
<td>2650</td>
<td>a6</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>B7</td>
<td>2000</td>
<td>53.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This will create the following aggregated quantities:

<table>
<thead>
<tr>
<th>Buy Cum</th>
<th>IO</th>
<th>OC / OO</th>
<th>Limit Qty</th>
<th>Price</th>
<th>Limit Qty</th>
<th>OC / OO</th>
<th>IO</th>
<th>Ask Cum</th>
<th>Paired</th>
<th>Imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>MP</td>
<td>6,000</td>
<td>0</td>
<td>6000</td>
<td>-6000</td>
<td>0</td>
<td>-6000</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>54.5</td>
<td>6,000</td>
<td>0</td>
<td>-6000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td>5000</td>
<td></td>
<td>3000</td>
<td>54.30</td>
<td>6,000</td>
<td>5000</td>
<td>1000</td>
<td>-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td></td>
<td></td>
<td></td>
<td>54.20</td>
<td>3,000</td>
<td>2000</td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
<td>2000</td>
</tr>
<tr>
<td>5,000</td>
<td></td>
<td></td>
<td></td>
<td>54.10</td>
<td>2,000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>5,000</td>
<td></td>
<td></td>
<td></td>
<td>54.00</td>
<td>1,000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>4000</td>
<td>4000</td>
</tr>
<tr>
<td>9,000</td>
<td>4000</td>
<td></td>
<td>1000</td>
<td>53.90</td>
<td>1,000</td>
<td>1000</td>
<td>8000</td>
<td>8000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12,000</td>
<td>3000</td>
<td></td>
<td>1000</td>
<td>53.80</td>
<td>1,000</td>
<td>1000</td>
<td>11000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,000</td>
<td>3000</td>
<td></td>
<td>1000</td>
<td>53.70</td>
<td>-</td>
<td>0</td>
<td>14000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,000</td>
<td>2000</td>
<td></td>
<td>1000</td>
<td>53.60</td>
<td>-</td>
<td>0</td>
<td>14000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,000</td>
<td>2000</td>
<td></td>
<td>1000</td>
<td>53.50</td>
<td>-</td>
<td>0</td>
<td>14000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14,000</td>
<td></td>
<td></td>
<td></td>
<td>MP</td>
<td>-</td>
<td>0</td>
<td>14000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Matching will start from the deficit side, in this case the bid side. In case of internal matching these will be sought out first, however in this example we assume no internal matches.

The following Trades will be generated:

<table>
<thead>
<tr>
<th>Order #</th>
<th>Price</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 11</td>
<td>54.30</td>
<td>1000</td>
</tr>
<tr>
<td>1 - 8</td>
<td>54.30</td>
<td>500</td>
</tr>
<tr>
<td>1 - 10</td>
<td>54.30</td>
<td>500</td>
</tr>
<tr>
<td>1 - 9</td>
<td>54.30</td>
<td>1000</td>
</tr>
<tr>
<td>5 - 12</td>
<td>54.30</td>
<td>350</td>
</tr>
<tr>
<td>5 - 13</td>
<td>54.30</td>
<td>1650</td>
</tr>
</tbody>
</table>
Equilibrium Price Determination – graphical example

The figure below shows supply (turn-S) and demand curves (turn-B) for two different cases. In one case (left), the best buy price is less than (<) the best sell price. In the other case (right), the buy price is higher than (>) the best sell price.

The equilibrium price is set to the price where the biggest volume can be traded i.e. where both curves meet (in the right-hand example above). If the curves do not meet (as in the left-hand example above), there is no equilibrium price.
Appendix B: Matching examples, price-internal-displayed-time priority and Market Orders

1. Internal priority without Reserve Orders

The following buy Orders are entered into the Order Book in the following sequence.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

An ask Order is entered by Member BBB. Order #4, 50000@14,90.

The following Trades are matched according to price-internal-time priority.
Order #2/4 - 15000@15,00
Order #1/4 – 35000@15,00

The following Orders remain in the Order Book.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Internal priority with Reserve Orders

Remarks: When Reserve Order is matched with another order, each new open quantity has a new timestamp.

The following buy Orders are entered into the Order Book. Order #2 is a Reserve Order with total volume of 50000 shares and instructions to display (d) 15000 shares and hidden (h) 35000 shares.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2d</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2h</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
An ask Order is entered by Member BBB. Order #5, 45000@14,90.

The following Trades are matched according to price-internal-time priority.
Order #2/5 - 15000@15,00
Order #2/5 - 30000@15,00

The following Orders remain in the Order Book.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order#</strong></td>
<td><strong>Time</strong></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

An ask Order is entered by Member CCC. Order #6, 50000@14,90.

The following Trades are matched according to price-internal-time priority.
Order #1/6 - 40000@15,00
Order #3/6 - 5000@15,00
Order #2/6 - 5000@15,00

And finally, the following buy Order is remaining after matching.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order#</strong></td>
<td><strong>Time</strong></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
3. Market Orders

A. Market Order logics

Current Order Book, continuous trading, BBO = 9,00-9,03

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
<td>9,03</td>
<td>300</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td>9,04</td>
<td>500</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Bid Market Order #9 2000@MP is entered

Order Book after event

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
<td>9,04</td>
<td>500</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Trades: Order #9/6 – 300@9,03
B. Limit IOC

To sweep through multiple price levels, a Limit IOC Order can be used, where the limit price is crosses the BBO.

Current Order Book, continuous trading, BBO = 9,00-9,03

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,03</td>
<td>300</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>9,04</td>
<td>500</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
</tr>
</tbody>
</table>

A Limit IOC Order #9 1000@10,00 is entered

Order Book after event

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,05</td>
<td>800</td>
<td>8</td>
</tr>
</tbody>
</table>

**Trades:**
- Order #9/6 – 300@9,03
- Order #9/7 – 500@9,04
- Order #9/8 – 200@9,05
Appendix C: Matching examples, Reserve and Hidden Orders

Building Order Book on ask side

All Orders entered during continuous trading in the following order:

1. Sell 1000 at 9.00 SEK, 100 displayed
2. Sell 200 @ 9.00 SEK
3. Sell 200 @ 9.00 SEK, all hidden
4. Sell 400 @ 9.00 SEK, 100 displayed

Order Book after event:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Reserve /hidden</th>
<th>Reserve /hidden</th>
<th>Display</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>time</td>
<td>volume</td>
<td>volume</td>
<td></td>
</tr>
<tr>
<td>Ask</td>
<td>Reserve /hidden</td>
<td>Display /hidden</td>
<td>Reserve</td>
<td>Order#</td>
</tr>
<tr>
<td></td>
<td>time</td>
<td>time</td>
<td>/hidden</td>
<td></td>
</tr>
<tr>
<td></td>
<td>volume</td>
<td>volume</td>
<td>volume</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>Display</th>
<th>Reserve</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,00</td>
<td>100</td>
<td>900 R</td>
<td>1a</td>
<td>1</td>
</tr>
<tr>
<td>9,00</td>
<td>200</td>
<td>900 R</td>
<td>1b</td>
<td>1</td>
</tr>
<tr>
<td>9,00</td>
<td>200 H</td>
<td>200 H</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
<td>300 R</td>
<td>4a</td>
<td>4</td>
</tr>
</tbody>
</table>

Please note that Reserve Orders are assigned two time priorities when they are entered into the book – one for the displayed portion and one for the hidden quantity. In the tables above, this is indicated using (a) and (b).

Please also note that hidden Orders have to be large in scale (LIS) at the time of entry. This is not the case in the examples.

Example 1:

State of the Order Book on the ask side

At price level 9.00 SEK we have the following:
- 400 display,
- 1,200 reserve, and
- 200 hidden
Assume a bid Order comes in for 1,800 shares @ 9.00 SEK

**Allocation**

First from displayed volumes

1) 100 shares from Order number 1a
2) 200 shares from Order number 2
3) 100 shares from Order number 4a

Then from Reserved / Hidden quantity

4) 900 shares from Order number 1b
5) 200 shares from Order number 3
6) 300 shares from Order number 4b

**Trades**

Takes place in following Order (same as allocation)

1) 100 shares from Order number 1a
2) 200 shares from Order number 2
3) 100 shares from Order number 4a
4) 900 shares from Order number 1b
5) 200 shares from Order number 3
6) 300 shares from Order number 4b

The remaining book will be empty since all volume, displayed and hidden, been matched.
Example 2:

State of the Order Book on the ask side

At price level 9.00 SEK we have the following:
- 400 display,
- 1,200 reserve, and
- 200 hidden

<table>
<thead>
<tr>
<th>Bid</th>
<th>Reserve</th>
<th>Reserve</th>
<th>Display</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>/hidden time</td>
<td>/hidden volume</td>
<td>volume</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
<td>900 R</td>
<td>1a</td>
<td>1</td>
</tr>
<tr>
<td>9,00</td>
<td>200</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>200 H</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
<td>300 R</td>
<td>4a</td>
<td>4b</td>
</tr>
</tbody>
</table>

Assume a bid Order comes in for 250 shares at 9 SEK

Allocation

First from displayed volumes
1) 100 shares from Order number 1
2) 150 shares from Order number 2

Order #1 will be refreshed with 100 shares from reserve

Trades

Takes place in following order
1) 100 shares from Order number 1
2) 150 shares from Order number 2

Book will now look like this:
Detail:
- The reserve element of Order #1 retains time priority. The iceberg refresh is entered as a new Order #5.
- The remaining quantity of Order #2 retains time priority
- No change to the completely hidden Order priority

**Example 3:**

**State of the Order Book on the ask side**

At price level 9.00 SEK we have the following:
- 400 display,
- 1,200 reserve, and
- 200 hidden

<table>
<thead>
<tr>
<th>Bid</th>
<th>Reserve /hidden</th>
<th>Reserve /hidden</th>
<th>Display</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>time</td>
<td>volume</td>
<td>Price</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
<td>900 R</td>
<td>1a</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>200</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td></td>
<td>200 H</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
<td>300 R</td>
<td>4a</td>
<td></td>
</tr>
</tbody>
</table>

Assume a bid Order comes in for 1200 shares at 9.00 SEK

**Allocation**

First from display
1) 100 shares from Order number 1a
2) 200 shares from Order number 2
3) 100 shares from Order number 4a

Then from Reserved / Hidden quantity
4) 800 shares from Order number 1’s reserve pool (1b)

**Trades**

Take place in following order
1) 100 shares from Order number 1a
2) 200 shares from Order number 2
3) 100 shares from Order number 4a
4) 800 shares from Order number 1’s reserve pool (1b)
Book will now look like this:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve</td>
<td>Reserve</td>
</tr>
<tr>
<td>/hidden</td>
<td>/hidden</td>
</tr>
<tr>
<td>Order#</td>
<td>Price</td>
</tr>
<tr>
<td>time</td>
<td>volume</td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
</tr>
<tr>
<td>9,00</td>
<td>100</td>
</tr>
<tr>
<td>9,00</td>
<td>200</td>
</tr>
</tbody>
</table>

Detail:
- Order #1 will be refreshed with remaining 100 shares from reserve. The reserve is now depleted and the refresh is given priority “5” in the book.
- Order #2 has been fully executed.
- Order #3 retains priority
- The displayed element of Order #4 was matched, the reserve element maintains priority, the refreshed display Order is given priority “6”
Appendix D: Pegged Orders

Pegged Orders allow a pricing of the Orders relative to the current market price defined as Best Bid Offer (BBO). NB. Non-displayed must meet Large in scale criteria except Nordic@Mid Orders. This is not reflected in the examples below.

Tick size is 0,01 in the following examples.

1. Current Order Book, continuous trading, BBO = 9,00-9,03

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed</th>
<th>Display</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed</th>
<th>Display</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
<td>volume</td>
<td>volume</td>
<td>Price</td>
<td>Price</td>
<td>volume</td>
<td>volume</td>
<td>Time</td>
<td>Order#</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
<td>9,03</td>
<td>300</td>
<td>9,03</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td>9,04</td>
<td>500</td>
<td>9,04</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td>9,05</td>
<td>1000</td>
<td>9,05</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
<td>9,06</td>
<td>500</td>
<td>9,06</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
<td>9,07</td>
<td>1000</td>
<td>9,07</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

2. A bid primary non-displayed peg Order #9 200@Best Bid + 0,02 (2 ticks) is entered, meaning actively trading @9,02, BBO = 9,00-9,03

Order Book after event:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed</th>
<th>Display</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed</th>
<th>Display</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
<td>volume</td>
<td>volume</td>
<td>Price</td>
<td>Price</td>
<td>volume</td>
<td>volume</td>
<td>Time</td>
<td>Order#</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>200</td>
<td>9,02 (Primary + 0,02)</td>
<td>9,03</td>
<td>300</td>
<td>9,03</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>200</td>
<td>9,00</td>
<td>9,04</td>
<td>500</td>
<td>9,04</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td>9,05</td>
<td>1000</td>
<td>9,05</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td>9,06</td>
<td>500</td>
<td>9,06</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
<td>9,07</td>
<td>1000</td>
<td>9,07</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
<td>9,08</td>
<td>1000</td>
<td>9,08</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
3. An ask is entered, Order #10, 100@9,00, BBO = 9,00-9,03

Order #10, 100@9,00 hits the best price, which is the Non-displayed Order #9

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,02</td>
<td></td>
<td>9,03</td>
<td>300</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Primary + 0,02)</td>
<td></td>
<td>9,04</td>
<td>500</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,05</td>
<td></td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
</tr>
</tbody>
</table>

Trades: Order #10/9 – 100@9,02

4. A new ask is entered, Order #11, 50@9,01 which is within the price range, BBO = 9,00-9,03

Order #9 is partially filled

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,02</td>
<td></td>
<td>9,03</td>
<td>300</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Primary + 0,02)</td>
<td></td>
<td>9,04</td>
<td>500</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,05</td>
<td></td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
</tr>
</tbody>
</table>

Trades: Order #11/9 – 50@9,02

5. Order #1 is cancelled, new bid is entered, Order #12, 100@9,01, BBO = 9,01-9,03

This means that Order #9 is cancelled and a new Pegged Order is sent in based on the new best bid. Order #13, 50@ Best bid + 0,02 (9,03 and within the price range of Order #6)
Order #13 will match with Order #6

Order Book after event:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>12</td>
<td>100</td>
<td>9,01</td>
<td>9,03</td>
<td>250</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td>9,04</td>
<td>500</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>200</td>
<td>8,90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>100</td>
<td>8,70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Trades: Order #13/6 – 50@9,03

6. Other pegging scenarios

1. A bid Market Peg Order #12 100@Best Offer - 0,02 is entered meaning actively trading @ 9,01 (non-displayed)

2. A bid Market Peg Order #13 200@Best Offer - 0,03 is entered meaning actively trading @9,00 (displayed)

3. A bid mid-point peg Order #14 500 @ - 0,00 is entered meaning actively trading @9,02 (non-displayed)

Order Book after event: BBO = 9.01-9,03

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Ask</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>14</td>
<td>500</td>
<td>9,02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>100</td>
<td>9,01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>100</td>
<td>9,01</td>
<td>9,03</td>
<td>200</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>200</td>
<td>9,00</td>
<td>9,05</td>
<td>1000</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Order #1 is removed. Order #14 is now rounded to a less aggressive price with a new timestamp.

Order Book after event:

<table>
<thead>
<tr>
<th>Bid</th>
<th>Non-displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Non-Display displayed volume</th>
<th>Display volume</th>
<th>Price</th>
<th>Time</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>9,01</td>
<td></td>
<td></td>
<td>9,03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Market - 0,02)</td>
<td></td>
<td></td>
<td>200</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>100</td>
<td>9,01</td>
<td></td>
<td></td>
<td>9,04</td>
<td>500</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Midpoint) 9,00</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>500</td>
<td>9,01</td>
<td></td>
<td></td>
<td>9,04</td>
<td>500</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Market - 0,03)</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>200</td>
<td>9,05</td>
<td></td>
<td></td>
<td>1000</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>300</td>
<td>8,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>200</td>
<td>8,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix E: Example deferred publication table

<table>
<thead>
<tr>
<th>Class of shares in terms of average daily turnover (ADT)</th>
<th>Minimum qualifying size of transaction for permitted delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADT &lt; EUR 100 000</td>
<td>Greater of 5% of ADT and EUR 25 000</td>
</tr>
<tr>
<td>EUR 100 000 ≤ ADT &lt; EUR 1000 000</td>
<td>Lower of 10% of ADT and EUR 3 500 000</td>
</tr>
<tr>
<td>EUR 1000 000 ≤ ADT &lt; EUR 50 000 000</td>
<td>Lower of 10% of ADT and EUR 7 500 000</td>
</tr>
<tr>
<td>ADT ≥ EUR 50 000 000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permitted delay for publication</th>
<th>EUR 10 000</th>
<th>Greater of 15% of ADT and EUR 75 000</th>
<th>Lower of 15% of ADT and EUR 5 000 000</th>
<th>Lower of 20% of ADT and EUR 15 000 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 minutes</td>
<td></td>
<td>GBR 25 000</td>
<td>GBR 25 000</td>
<td>GBR 25 000</td>
</tr>
<tr>
<td>180 minutes</td>
<td></td>
<td>GBR 25 000</td>
<td>GBR 25 000</td>
<td>GBR 25 000</td>
</tr>
</tbody>
</table>

### Class of shares in terms of average daily turnover (ADT)

<table>
<thead>
<tr>
<th>Minimum qualifying size of transaction for permitted delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Until end of trading day (or roll-over to noon of next trading day if trade undertaken in final two hours of trading day)</td>
</tr>
<tr>
<td>Until end of trading day next after trade</td>
</tr>
<tr>
<td>Until end of second trading day next after trade</td>
</tr>
<tr>
<td>Until end of third trading day next after trade</td>
</tr>
</tbody>
</table>
Appendix F: Tick size tables

The tick sizes for Instruments listed on the main market within Nasdaq Nordic are as described below:

Note that if one share series of an issuer qualifies to Large Cap segment or main indices (OMXC20/ OMXH25/OMXS30) and hence to the FESE tick size table 2, also other share series of that issuer is included. Secondly, if a share has been within the Large Cap segment or main indices (OMXC20/ OMXH25/OMXS30) – and hence is internationally traded on other marketplaces – then these shares will continue to have the FESE tick size table 2 applied even after a segment or index change.

<table>
<thead>
<tr>
<th>Market</th>
<th>Category</th>
<th>Tick size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasdaq Copenhagen</td>
<td><strong>XCSE Equities DKK, FESE2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Equities –Large Cap and OMXC20)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0000 - 0.4999</td>
<td>0.0001</td>
</tr>
<tr>
<td></td>
<td>0.5000 - 0.9995</td>
<td>0.0005</td>
</tr>
<tr>
<td></td>
<td>1.0000 - 1.9990</td>
<td>0.0010</td>
</tr>
<tr>
<td></td>
<td>2.0000 - 4.9980</td>
<td>0.0020</td>
</tr>
<tr>
<td></td>
<td>5.0000 - 9,9950</td>
<td>0.0050</td>
</tr>
<tr>
<td></td>
<td>10.0000 - 49.9900</td>
<td>0.0100</td>
</tr>
<tr>
<td></td>
<td>50.0000 - 99.9500</td>
<td>0.0500</td>
</tr>
<tr>
<td></td>
<td>100.0000 - 499.9000</td>
<td>0.1000</td>
</tr>
<tr>
<td></td>
<td>500.0000 - 999.5000</td>
<td>0.5000</td>
</tr>
<tr>
<td></td>
<td>1,000.0000 - 4,999.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td></td>
<td>5,000.0000 - 9,995.0000</td>
<td>5.0000</td>
</tr>
<tr>
<td></td>
<td>10,000.0000 - 19,990.0000</td>
<td>10.0000</td>
</tr>
<tr>
<td></td>
<td>20,000.0000 - 39,980.0000</td>
<td>20.0000</td>
</tr>
<tr>
<td></td>
<td>40,000.0000 - 49,960.0000</td>
<td>40.0000</td>
</tr>
<tr>
<td></td>
<td>50,000.0000 - 79,950.0000</td>
<td>50.0000</td>
</tr>
<tr>
<td></td>
<td>80,000.0000 - 99,920.0000</td>
<td>80.0000</td>
</tr>
<tr>
<td></td>
<td>100,000.0000 -</td>
<td>100.0000</td>
</tr>
</tbody>
</table>
**XCSE Other Equities**  
*(equities that are not comprised by the FESE2 table; rights)*

<table>
<thead>
<tr>
<th>Value</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>0.499</td>
</tr>
<tr>
<td>0.50</td>
<td>0.995</td>
</tr>
<tr>
<td>1.00</td>
<td>4.99</td>
</tr>
<tr>
<td>5.00</td>
<td>9.95</td>
</tr>
<tr>
<td>10.00</td>
<td>49.90</td>
</tr>
<tr>
<td>50.00</td>
<td>499.50</td>
</tr>
<tr>
<td>500.00</td>
<td>4,999.00</td>
</tr>
<tr>
<td>5,000.00</td>
<td>19,999.00</td>
</tr>
<tr>
<td>20,000.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**XCSE Warrants and Certificates**  
*(Warrants; Certificates; ETNs)*

<table>
<thead>
<tr>
<th>Value</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 4.99</td>
<td>0.01</td>
</tr>
<tr>
<td>5.00 - 9.95</td>
<td>0.05</td>
</tr>
<tr>
<td>10.00 - 49.90</td>
<td>0.10</td>
</tr>
<tr>
<td>50.00 - 499.50</td>
<td>0.50</td>
</tr>
<tr>
<td>500.00 - 4,999.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5,000.00 - 19,999.00</td>
<td>10.00</td>
</tr>
<tr>
<td>20,000.00 -</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Certificates, DKK**  
*(optional for Certificates and ETNs)*

<table>
<thead>
<tr>
<th>Value</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 99.99</td>
<td>0.01</td>
</tr>
<tr>
<td>100.00 – 499.95</td>
<td>0.05</td>
</tr>
<tr>
<td>500.00 –</td>
<td>0.10</td>
</tr>
</tbody>
</table>

**XCSE UTC, EUR/USD**  
*(Collective Investment Undertakings)*

<table>
<thead>
<tr>
<th>Value</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 1,999.99</td>
<td>0.01</td>
</tr>
<tr>
<td>2,000.00 – 9,999.90</td>
<td>0.10</td>
</tr>
<tr>
<td>10,000.00 -</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**XCSE UTC, DKK**  
*(Collective Investment Undertakings)*

<table>
<thead>
<tr>
<th>Value</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 49.99</td>
<td>0.01</td>
</tr>
<tr>
<td>50.00 - 99.95</td>
<td>0.05</td>
</tr>
<tr>
<td>100.00 – 9,999.90</td>
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</tr>
<tr>
<td>10,000.00 -</td>
<td>1.00</td>
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</table>
### Equity Rights

<table>
<thead>
<tr>
<th>Range</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>0.00 – 999.95</td>
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</tr>
<tr>
<td>1,000.00 – 9,999.75</td>
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</tr>
<tr>
<td>10,000.00 – 49,999</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Nasdaq Stockholm

#### Equities, SEK Most Liquid, FESE2

**(Equities – Large Cap and OMXS30 – FESE2)**

<table>
<thead>
<tr>
<th>Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0000 - 0.4999</td>
<td>0.001</td>
</tr>
<tr>
<td>0.5000 - 0.995</td>
<td>0.005</td>
</tr>
<tr>
<td>1.0000 - 1.9990</td>
<td>0.010</td>
</tr>
<tr>
<td>2.0000 - 4.9980</td>
<td>0.020</td>
</tr>
<tr>
<td>5.0000 - 9.9950</td>
<td>0.050</td>
</tr>
<tr>
<td>10.0000 - 49.999000</td>
<td>0.100</td>
</tr>
<tr>
<td>50.0000 - 99.95000</td>
<td>0.500</td>
</tr>
<tr>
<td>100.0000 - 499.90000</td>
<td>1.000</td>
</tr>
<tr>
<td>500.0000 - 999.50000</td>
<td>5.000</td>
</tr>
<tr>
<td>1,000.0000 - 4,999.00000</td>
<td>10.000</td>
</tr>
<tr>
<td>5,000.0000 - 9,995.00000</td>
<td>50.000</td>
</tr>
<tr>
<td>10,000.0000 - 19,990.0000</td>
<td>80.000</td>
</tr>
<tr>
<td>20,000.0000 - 39,980.0000</td>
<td>100.000</td>
</tr>
<tr>
<td>40,000.0000 - 49,960.0000</td>
<td></td>
</tr>
<tr>
<td>50,000.0000 - 79,950.0000</td>
<td></td>
</tr>
<tr>
<td>80,000.0000 - 99,920.0000</td>
<td></td>
</tr>
<tr>
<td>100,000.0000 - 100,000.0000</td>
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</table>

#### Other Equities

**(equities that are not comprised by the FESE2 table; Equity rights; Equity Warrants)**

<table>
<thead>
<tr>
<th>Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 0.499</td>
<td>0.001</td>
</tr>
<tr>
<td>0.50 - 0.995</td>
<td>0.005</td>
</tr>
<tr>
<td>1.00 - 4.99</td>
<td>0.010</td>
</tr>
<tr>
<td>5.00 - 14.95</td>
<td>0.050</td>
</tr>
<tr>
<td>15.00 - 49.90</td>
<td>0.100</td>
</tr>
<tr>
<td>50.00 - 149.75</td>
<td>0.250</td>
</tr>
<tr>
<td>150.00 - 499.50</td>
<td>0.500</td>
</tr>
<tr>
<td>500.00 - 4,999.00</td>
<td>1.000</td>
</tr>
<tr>
<td>5,000.00 -</td>
<td>5.000</td>
</tr>
</tbody>
</table>

#### Warrants and Certificates

**(Warrants; Certificates; ETNs)**

<table>
<thead>
<tr>
<th>Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 4.99</td>
<td>0.010</td>
</tr>
<tr>
<td>5.00 - 14.95</td>
<td>0.050</td>
</tr>
<tr>
<td>15.00 - 49.90</td>
<td>0.100</td>
</tr>
<tr>
<td>50.00 - 149.75</td>
<td>0.250</td>
</tr>
<tr>
<td>150.00 - 499.50</td>
<td>0.500</td>
</tr>
<tr>
<td>500.00 - 4,999.00</td>
<td>1.000</td>
</tr>
<tr>
<td>Price Range</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>5,000.00 - 5.0000</td>
<td>5.00</td>
</tr>
<tr>
<td>or, optionally</td>
<td>0.00 - 0.01</td>
</tr>
<tr>
<td>or, optionally for Certificates and ETNs</td>
<td>0.01</td>
</tr>
<tr>
<td>0.00 – 99.99</td>
<td>0.05</td>
</tr>
<tr>
<td>100.00 – 499.95</td>
<td>0.10</td>
</tr>
<tr>
<td>500.00</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Convertible**
Same as for Warrants and Certificates or;
<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 9.99</td>
<td>0.01</td>
</tr>
<tr>
<td>10.00 - 49.95</td>
<td>0.05</td>
</tr>
<tr>
<td>50.00 – 499.90</td>
<td>0.10</td>
</tr>
<tr>
<td>500.00</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Index funds, SEK**
*(Units in Funds)*
<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 4.99</td>
<td>0.01</td>
</tr>
<tr>
<td>5.00 - 499.95</td>
<td>0.05</td>
</tr>
<tr>
<td>500.00 – 4,999.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5,000.00 –</td>
<td>5.00</td>
</tr>
</tbody>
</table>

**Or**

**AMF or Structured with FI or FX**
*(Units in Funds)*
<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 -</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**Index funds, NOK**
*(Unit in Funds Norwegian)*
<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01 - 49.99</td>
<td>0.01</td>
</tr>
<tr>
<td>50.00 - 249.95</td>
<td>0.05</td>
</tr>
<tr>
<td>250.00 - 999.90</td>
<td>0.10</td>
</tr>
<tr>
<td>1000.00 -</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Equities, NOK Liquid**
*(Equities – secondary traded equities admitted to trading on Oslo Børs – OBX)*
<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0000 - 0.4999</td>
<td>0.0001</td>
</tr>
<tr>
<td>0.5000 - 0.9995</td>
<td>0.0005</td>
</tr>
<tr>
<td>1.0000 - 1.9990</td>
<td>0.0010</td>
</tr>
<tr>
<td>2.0000 - 4.9980</td>
<td>0.0020</td>
</tr>
<tr>
<td>5.0000 - 9.9950</td>
<td>0.0050</td>
</tr>
<tr>
<td>10.0000 - 49.9900</td>
<td>0.0100</td>
</tr>
<tr>
<td>Value Range</td>
<td>Bid Spread</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------</td>
</tr>
<tr>
<td>50.0000 - 99.9500</td>
<td>0.0500</td>
</tr>
<tr>
<td>100.0000 - 499.9000</td>
<td>0.1000</td>
</tr>
<tr>
<td>500.0000 - 999.5000</td>
<td>0.5000</td>
</tr>
<tr>
<td>1,000.0000 - 4,999.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>5,000.0000 - 9,995.0000</td>
<td>5.0000</td>
</tr>
<tr>
<td>10,000.0000 - 19,990.0000</td>
<td>10.0000</td>
</tr>
<tr>
<td>20,000.0000 - 39,980.0000</td>
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<tr>
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<tr>
<td>80,000.0000 - 99,920.0000</td>
<td>80.0000</td>
</tr>
<tr>
<td>100,000.0000 -</td>
<td>100.0000</td>
</tr>
</tbody>
</table>

**Equities, NOK**
*(Equities – secondary traded equities admitted to trading on Oslo Børs – others)*

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Bid Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 9.99</td>
<td>0.01</td>
</tr>
<tr>
<td>10.00 – 14.95</td>
<td>0.05</td>
</tr>
<tr>
<td>15.00 – 49.90</td>
<td>0.10</td>
</tr>
<tr>
<td>50.00 – 99.75</td>
<td>0.25</td>
</tr>
<tr>
<td>100.00 – 249.50</td>
<td>0.50</td>
</tr>
<tr>
<td>250.00 –</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Nasdaq Iceland**

**XICE Equities, ISK**
*(Equities, Collective Investment Undertakings and Units in Funds)*

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Bid Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 14.99</td>
<td>0.01</td>
</tr>
<tr>
<td>15.00 – 49.95</td>
<td>0.05</td>
</tr>
<tr>
<td>50.00 – 99.90</td>
<td>0.10</td>
</tr>
<tr>
<td>100.00 – 499.50</td>
<td>0.50</td>
</tr>
<tr>
<td>500.00 – 4,999.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5,000.00 –</td>
<td>5.00</td>
</tr>
</tbody>
</table>

**Nasdaq Helsinki**

**XHEL Equities EUR, FESE2**
*(Equities – Large Cap, OMXH25 and Subscription Rights)*

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Bid Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0000 - 0.4999</td>
<td>0.0001</td>
</tr>
<tr>
<td>0.5000 - 0.9995</td>
<td>0.0005</td>
</tr>
<tr>
<td>1.0000 - 1.9990</td>
<td>0.0010</td>
</tr>
<tr>
<td>2.0000 - 4.9980</td>
<td>0.0020</td>
</tr>
<tr>
<td>5.0000 - 9,9950</td>
<td>0.0050</td>
</tr>
<tr>
<td>10.0000 - 49.9900</td>
<td>0.0100</td>
</tr>
<tr>
<td>50.0000 - 99.9500</td>
<td>0.0500</td>
</tr>
<tr>
<td>100.0000 - 499.9000</td>
<td>0.1000</td>
</tr>
<tr>
<td>500.0000 - 999.5000</td>
<td>0.5000</td>
</tr>
<tr>
<td>1,000.0000 - 4,999.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>5,000.0000 - 9,995.0000</td>
<td>5.0000</td>
</tr>
</tbody>
</table>
The tick sizes for Instruments listed on First North in respective country are as follows:

<table>
<thead>
<tr>
<th>Nasdaq Tallinn</th>
<th>Baltic Equities (including First North)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.000 - 0.999</td>
</tr>
<tr>
<td></td>
<td>1.00 - 9.99</td>
</tr>
<tr>
<td></td>
<td>10.00 -</td>
</tr>
<tr>
<td>Funds</td>
<td>0.00 -</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nasdaq Riga</th>
<th>Baltic Equities (including First North)</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
<td>1.00 - 9.99</td>
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<tr>
<td></td>
<td>10.00 -</td>
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<tr>
<td>Funds</td>
<td>0.00 -</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Nasdaq Vilnius</th>
<th>Baltic Equities (including First North)</th>
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</thead>
<tbody>
<tr>
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<tr>
<td></td>
<td>1.00 - 9.99</td>
</tr>
<tr>
<td></td>
<td>10.00 -</td>
</tr>
<tr>
<td>Funds</td>
<td>0.00 -</td>
</tr>
</tbody>
</table>

The tick sizes for Instruments listed on First North in respective country are as follows:

XHEL Other Equities
(equities that are not comprised by the FSESE2 table; Equity Rights)

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Tick Size</th>
</tr>
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<tbody>
<tr>
<td>0.00 - 0.499</td>
<td>0.001</td>
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<tr>
<td>0.50 - 0.995</td>
<td>0.005</td>
</tr>
<tr>
<td>1.00 -</td>
<td>0.01</td>
</tr>
</tbody>
</table>

XHEL Other Instruments
(Warrants; Certificates; ETNs; ETFs)

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Tick Size</th>
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</thead>
<tbody>
<tr>
<td>0.00 -</td>
<td>0.01</td>
</tr>
<tr>
<td>Market</td>
<td>Category</td>
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<tr>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>First North Denmark</strong></td>
<td><strong>XCSE Other Equities</strong></td>
</tr>
<tr>
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<td>0.00 – 0.499</td>
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<td></td>
<td>0.50 – 0.995</td>
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<tr>
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<td>1.00 – 4.99</td>
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<tr>
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<td>5.00 – 9.95</td>
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<td></td>
<td>10.00 – 49.90</td>
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<tr>
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<tr>
<td></td>
<td>5,000.00 – 19,990.00</td>
</tr>
<tr>
<td></td>
<td>20,000.00 –</td>
</tr>
</tbody>
</table>

| First North Stockholm  | **Other Equities**             |           |
|                        | *(First North STO)*            |           |
|                        | 0.00 – 0.499                  | 0.001     |
|                        | 0.50 – 0.995                  | 0.005     |
|                        | 1.00 – 4.99                   | 0.01      |
|                        | 5.00 – 14.95                  | 0.05      |
|                        | 15.00 – 49.90                 | 0.10      |
|                        | 50.00 – 149.75                | 0.25      |
|                        | 150.00 – 499.50               | 0.50      |
|                        | 500.00 – 4,999.00             | 1.00      |
|                        | 5,000.00 –                    | 5.00      |

**Warrants and Certificates**
*(First North Certificates STO, First North Warrants STO)*

|                        | 0.00 – 4.99                   | 0.01      |
|                        | 5.00 – 14.95                  | 0.05      |
|                        | 15.00 – 49.90                 | 0.10      |
|                        | 50.00 – 149.75                | 0.25      |
|                        | 150.00 – 499.50               | 0.50      |
|                        | 500.00 – 4,999.00             | 1.00      |
|                        | 5,000.00 –                    | 5.00      |

**FN Convertibles**
*(First North Convertibles STO)*

|                        | 0.00 – 9.99                   | 0.01      |
|                        | 10.00 – 49.95                 | 0.05      |
|                        | 50.00 – 499.90                | 0.10      |
|                        | 500.000 –                     | 0.50      |
### Equities, NOK Liquid

*Equities – secondary traded equities admitted to trading on Oslo Børs – OBX*

<table>
<thead>
<tr>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0000 - 0.4999</td>
<td>0.0001</td>
</tr>
<tr>
<td>0.5000 - 0.9995</td>
<td>0.0005</td>
</tr>
<tr>
<td>1.0000 - 1.9990</td>
<td>0.0010</td>
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<tr>
<td>2.0000 - 4.9980</td>
<td>0.0020</td>
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<tr>
<td>5.0000 - 9.9950</td>
<td>0.0050</td>
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<tr>
<td>10.0000 - 49.9900</td>
<td>0.0100</td>
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<tr>
<td>50.0000 - 99.9500</td>
<td>0.0500</td>
</tr>
<tr>
<td>100.0000 - 499.9000</td>
<td>0.1000</td>
</tr>
<tr>
<td>500.0000 - 999.5000</td>
<td>0.5000</td>
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<tr>
<td>1,000.0000 - 4,999.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>5,000.0000 - 9,995.0000</td>
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<tr>
<td>10,000.0000 - 19,990.0000</td>
<td>10.0000</td>
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<tr>
<td>20,000.0000 - 39,980.0000</td>
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<td>50,000.0000 - 79,950.0000</td>
<td>50.0000</td>
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<tr>
<td>80,000.0000 - 99,920.0000</td>
<td>80.0000</td>
</tr>
<tr>
<td>100,000.0000 -</td>
<td>100.0000</td>
</tr>
</tbody>
</table>

### Equities, NOK

*Equities – secondary traded equities admitted to trading on Oslo Børs – others*

<table>
<thead>
<tr>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 9.99</td>
<td>0.01</td>
</tr>
<tr>
<td>10.00 - 14.95</td>
<td>0.05</td>
</tr>
<tr>
<td>15.00 - 49.90</td>
<td>0.10</td>
</tr>
<tr>
<td>50.00 - 99.75</td>
<td>0.25</td>
</tr>
<tr>
<td>100.00 - 249.50</td>
<td>0.50</td>
</tr>
<tr>
<td>250.00 -</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### First North Finland

**XHEL Other Equities** *(First North Finland)*

<table>
<thead>
<tr>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 0.499</td>
<td>0.001</td>
</tr>
<tr>
<td>0.50 - 0.995</td>
<td>0.005</td>
</tr>
<tr>
<td>1.00 -</td>
<td>0.01</td>
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</tbody>
</table>

### First North Iceland

**Other Equities**

<table>
<thead>
<tr>
<th>Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 0.499</td>
<td>0.001</td>
</tr>
<tr>
<td>0.50 - 0.995</td>
<td>0.005</td>
</tr>
<tr>
<td>1.00 - 4.99</td>
<td>0.01</td>
</tr>
<tr>
<td>5.00 - 14.95</td>
<td>0.05</td>
</tr>
<tr>
<td>15.00 - 49.90</td>
<td>0.10</td>
</tr>
<tr>
<td>50.00 - 149.75</td>
<td>0.25</td>
</tr>
</tbody>
</table>

80(125)
<table>
<thead>
<tr>
<th>Range</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>150.00 - 499.50</td>
<td>0.50</td>
</tr>
<tr>
<td>500.00 - 4,999.00</td>
<td>1.00</td>
</tr>
<tr>
<td>5,000.00 -</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Appendix G: Note Codes

Note-Codes mark the Order Book to indicate that special conditions occur:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR</td>
<td>Company Bankruptcy</td>
</tr>
<tr>
<td>BS</td>
<td>Excluding comb. Bonus &amp; Split</td>
</tr>
<tr>
<td>CS</td>
<td>Cent shares</td>
</tr>
<tr>
<td>FE</td>
<td>Foreign non-EU/EEA Entity, excluding the Faroe Islands and Greenland</td>
</tr>
<tr>
<td>FN</td>
<td>First North Company</td>
</tr>
<tr>
<td>NM</td>
<td>New Market Company</td>
</tr>
<tr>
<td>OB</td>
<td>On the surveillance list</td>
</tr>
<tr>
<td>PO</td>
<td>Company subject to public offer</td>
</tr>
<tr>
<td>RL</td>
<td>Removal from listing in process</td>
</tr>
<tr>
<td>RS</td>
<td>Reversed Split</td>
</tr>
<tr>
<td>SL</td>
<td>Other surveillance list reason</td>
</tr>
<tr>
<td>SO</td>
<td>Sold-Out Buy-Back</td>
</tr>
<tr>
<td>SP</td>
<td>Excluding participating in split</td>
</tr>
<tr>
<td>SR</td>
<td>Excluding comb. split and issue right/s</td>
</tr>
<tr>
<td>SS</td>
<td>Excluding comb. Split &amp; Redemption share</td>
</tr>
<tr>
<td>SU</td>
<td>Suspension</td>
</tr>
<tr>
<td>TO</td>
<td>A significant reverse take-over pending</td>
</tr>
<tr>
<td>UD</td>
<td>Under drawing</td>
</tr>
<tr>
<td>UL</td>
<td>Unlisted</td>
</tr>
<tr>
<td>WI</td>
<td>When Issued</td>
</tr>
<tr>
<td>XD</td>
<td>Excluding dividend</td>
</tr>
<tr>
<td>XR</td>
<td>Excluding participating in right/s</td>
</tr>
</tbody>
</table>
Appendix H: Combinations of Order Types, attributes, session and time-in-force

The following tables show the combinations of Order types, attributes and time-in-force conditions. They should be read in combination with the Order descriptions in Chapter 6.

NB. Where Types are shown with Time criteria, the table indicates whether the order types will participate in the Call or Continuous Trading (i.e. not whether the order types are available to be entered in Call or Continuous Trading).

All attributes are available for Limit Orders. Only minimum quantity may be used with Market Orders. No attribute can be applied to Imbalance Orders.

<table>
<thead>
<tr>
<th>Attributes and Types</th>
<th>Limit</th>
<th>Market</th>
<th>Imbalance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pegged</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum quantity</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Non-displayed</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All Order types are possible in Calls. In Continuous trading only Limit, Market and Nordic@Mid Orders are possible. Nordic@Mid Orders can be submitted during non-scheduled calls, but are not effective in the calls.

<table>
<thead>
<tr>
<th>Types and Session</th>
<th>Call</th>
<th>Continuous trading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Market</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Imbalance</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Nordic@Mid</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Market Maker</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

All time-in-force conditions are available for both Calls and Continuous trading. The time-in-force condition will be activated when matching is active, i.e. in the call it is during the uncross and in continuous trading is it for the duration of the session except in the case of a halt.

<table>
<thead>
<tr>
<th>Time-in-force and Session</th>
<th>Call</th>
<th>Continuous trading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate or Cancel</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Good-till-market close</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Good-till-cancelled</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Good-till-time</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Only the Reserve and Non-displayed attributes are available in calls with the exception of Market Pegged Orders, that at Order entry during a call automatically will be converted to a Market IOC order. During continuous trading, all attributes may be used.

### Attribute and Session

<table>
<thead>
<tr>
<th></th>
<th>Call</th>
<th>Continuous trading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Pegged</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Minimum quantity</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Non-displayed</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Minimum Acceptable Quantity (MAQ) is the only attribute allowed with the Time-in-force condition IOC for displayed orders. MAQ is however allowed on Non-displayed Orders. Here the Non-displayed Order would still need to meet LIS criteria, but the Trader would be able to state that the Order should only match if the MAQ criteria is met or exceeded. MAQ is also an available attribute on the Nordic@Mid order. Allowed attributes and Time-in-force combinations are presented in the table below.

### Attribute and Time-in-force

<table>
<thead>
<tr>
<th></th>
<th>Immediate or Cancel</th>
<th>Good-till-market close</th>
<th>Good-till-cancelled</th>
<th>Good-till-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Pegged</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum quantity</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-displayed</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

All time-in-force conditions are allowed for Limit Orders. Market Orders and Imbalance Orders must be IOC.

### Time-in-force and Type

<table>
<thead>
<tr>
<th></th>
<th>Limit</th>
<th>Market</th>
<th>Imbalance</th>
<th>Market Maker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate or Cancel</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Good-till-market close</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Good-till-cancelled</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good-till-time</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

In the tables above, ‘x’ indicates that the combination is allowed, blanks indicate that the combination is not allowed or that the combination is immediately cancelled without noting the validity condition.

The time-in-force criterion only has an effect when the matching process is active. During a call, this means that the time-in-force criterion will be applied during the uncross, not during pre-open. E.g. if an Order is entered during the pre-open with good-till-time X and the uncross happens after X, the Order will be cancelled before the uncross. If an Order is entered during the pre-open with time-in-force immediate-or-cancel, the Order will participate in the uncross and any unfilled part of it will be cancelled after the uncross.
Appendix I: Non-trading days and half day trading

An Excel file containing all non-trading days and half days for current and next year is available at Nasdaq Nordic website.

First North follows the main market non-trading days in respective country.

Half days (Pre-close CET 12.55, Closing auction at CET 13.00).

On half days, the Scheduled Intraday Auction will not operate on the Nasdaq Stockholm market segment(s) comprising this auction.
Appendix J: Official closing prices

The official closing prices and turnover figures are distributed via Genium Consolidated Feed (GCF). Information, in the form of an Order Book summary message is sent out at one or two distinct market state changes on INET depending on configuration.

Official closing price:  Official closing price = Last price. Last price is normally the closing auction price. In event of no closing auction price the official closing price is the latest Trade that updated Last price, cf. Appendix K.

Turnover:  Turnover including Manual Trades

Trade reporting can be done during Post-Trade up until state closed. Those volumes will update Turnover but not last price.

Configuration in GCF:

<table>
<thead>
<tr>
<th></th>
<th>Official closing price sent out at state change to</th>
<th>Turnover sent out at state change to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copenhagen</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Helsinki</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Iceland</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Riga</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Stockholm</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Tallinn</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
<tr>
<td>Vilnius</td>
<td>Post-Trade*</td>
<td>Closed</td>
</tr>
</tbody>
</table>

* Trade cancellations done after moving into Post-Trade will not be taken into consideration. A cancellation of an entire auction is unlikely. It is also very unlikely that a cancel of the last Trade during continuous trading happens in combination with no auction.

On all markets, two Order Book summary messages will be sent out, the first one when moving into Post-Trade with the information on closing price, and a second when moving into Closed where Turnover is presented. Note that the market state changes to Post-trade only after all Order Books in that market segment have moved to Post-trade.
Appendix K: Trading statistics

Automatically matched Trades updates:

- Turnover
- Average price
- Last price
- High/low

Reported Trade with Trade Type "Standard Trade" and "Standard Routed Trade" updates:

- Turnover
- Average price (if date of agreement is the current day and if the Order Book is in continuous trading state and price is within the current public BBO available within the Genium Market Information (GMI) system)
- Last paid price and High/Low price if date of agreement is the current day and if Order Book is in continuous trading and price is at or within the current BBO available within the GMI system, and the Trade is the most recent Trade

Reported Trades with Trade Type "Derivative Related Transaction", "Portfolio Trade", "Volume Weighted Average Price", "Exchange Granted Trade", "Pre-Opening Trade" and "Non-Standard Settlement" updates:

- Turnover

OTC and SI Trades of Trade Type "OTC Trade", "OTC Non-Standard", "SI Standard" and "SI Non-Standard" updates:

- No Trade statistics

Nordic@Mid Trades:

- 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.

---

5 Deferred publication follows the same logics.
6 GMI provides VWAP price information with and without reported trades.
Appendix L: MAQ on Non-displayed Orders

**MAQ Definition**
The MAQ shall be defined as the actual quantity that needs to be met. There is no connection or restriction with regards to the value of the LIS criteria and what value can be set as the MAQ.

MAQ is also possible to add as an attribute to the Nordic@Mid order.

**Trading Sessions and Validity**
MAQ Orders can participate in the auctions with the MAQ requirement temporarily waived. That is, MAQ Orders can participate in both auctions and the continuous market; however, the “MAQ requirement” will be enforced only during the continuous market.

**Pre-Open**
Non-displayed Orders with a MAQ can be entered during the pre-opening phase, prior to the opening auction, but MAQ will not be honoured. Only Limit Non-displayed Orders can be entered during the pre-open phase.

**Continuous Trading**
During continuous trading, Non-displayed Orders with a MAQ can be entered as:
- Limit Orders, or
- Pegged Orders

**Non-scheduled Intraday Auction**
A non-scheduled intraday auction after volatility guards or trading/matching halt, Non-displayed Orders with a MAQ will participate in the auction but MAQ will not be honoured.

**Scheduled Intraday Auction**
Non-displayed Orders with an MAQ will participate in the scheduled intraday auction but MAQ will not be honoured.

**Closing Auction**
Non-displayed Orders with a MAQ will participate in the closing auction but MAQ will not be honoured.

**Time Validity**
Non-displayed Orders with MAQs can be entered with the following time validity:
- GTT (Good Till Time)
- Day
- GTC (Good Till Cancel)
Appendix M: Volatility Guards

Volatility Guards definition
A Volatility Guard is a trading pause and resumption process designed to restore an orderly market in a single Order Book. The Volatility Guards will be utilized if a proposed Trade deviates too much in percentage from the last sale price (Dynamic Volatility Guard) or from the reference price, which is normally the day’s opening price (Static Volatility Guard).

When the Volatility Guard is triggered, continuous trading is halted followed by an auction period, after which the Order Book moves back to continuous trading.

Dynamic Volatility Guard
The Dynamic Volatility Guard is based on the last sale price from Automatch. It is only applicable during continuous trading. A breach will lead to a trading interruption and call auction, where a new Reference price (Auction price) for the Static Volatility Guard will be formed.

Figure: Dynamic Volatility Guard

Static Volatility Guard
The Static Volatility Guard is based on a reference price which normally is the price from last auction. If there has been no opening auction, previous day’s closing price will be used. It is only applicable during continuous trading. A breach of a Static Volatility Guard will lead to a trading interruption and a call auction where a new reference price will be formed.
Volatility Guards Halt Auctions
When the Volatility Guard is triggered, continuous trading is halted on the specific Order Book followed by an auction period with no auto matching. The length of the auction is 60 seconds for a triggered dynamic Volatility Guard, and 180 seconds for an auction triggered by a Static Volatility Guard. The auction period always ends with an uncross. Right after the uncross the Order Book move into continuous trading again. There will be no auction triggered if there is less than 240 seconds before the scheduled intraday auction and before the closing auction.

The auction has all the characteristics and rules for Order management as a normal halt auctions. There will be no prolonging of the auction, even if the auction price falls outside any previous threshold, or if there is a situation without any crossed prices.

It there has been a Static Volatility Guard triggered, without crossed prices in the auction, the system will calculate a new reference price and applicable bands for the Static Volatility Guard based on the last known AUTOMATCH Trade in the matching engine.

Market and Reference data
NASDAQ will disseminate halt reason information on proprietary and consolidated data feeds. Order Book reference data will also be available via the consolidated data feed and Nordic Workstation.

Configuration
The following configuration will apply. The configuration is set on Order Book level and the following thresholds are normally applied. Nasdaq Nordic holds the right to apply deviating thresholds on individual Order Books. Individual Order Book configuration is displayed in the reference data. Intraday updates widening the thresholds may occur when normal trading in an illiquid Instrument is hindered by the general percentages set at start of day, but also in rare situations when there is a natural and for the market well known movement in the Instrument leading to a situation where Nasdaq Nordic decides to widening the static thresholds in order to avoid unnecessary trading halts. Intraday updates of the thresholds will not be made available via the public data feeds.

Trading is allowed up and including the edge value.

<table>
<thead>
<tr>
<th>Liquidity band</th>
<th>Dynamic</th>
<th>Static</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index shares (OMXS30/OMXH25/OMXC20)</td>
<td>3%</td>
<td>10%</td>
</tr>
<tr>
<td>Other shares or ETFs or other market segments</td>
<td>5%</td>
<td>15%</td>
</tr>
<tr>
<td>First North or Liquidity Group C or spread &gt;= 3%</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Penny shares:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.25-5 (SEK, DKK), 0.025-0.5 (EUR)</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>0.1-0.25 (SEK, DKK), 0.01-0.025 (EUR)</td>
<td>40%</td>
<td>75%</td>
</tr>
<tr>
<td>0.05-0.1 (SEK, DKK), 0.005-0.01 (EUR)</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>0-0.05 (SEK, DKK), 0.0-0.005 (EUR)</td>
<td>100%</td>
<td>200%</td>
</tr>
<tr>
<td>Norwegian shares on Nasdaq Stockholm and First North Stockholm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7 In order to safeguard that Volatility guards are not being unnecessary triggered in the Index shares segment (OMXS30/OMXH25/OMXC20), Nasdaq Nordic will on best effort basis apply a special routine on select shares to increase the thresholds to 5% for dynamic, and 15% for static in certain situations. This routine will be used when the issuer has a planned company announcement of a quarterly or yearly result that will be published during the continuous trading session. The wider thresholds will be used for the whole trading day on such days. The next trading day the normal thresholds will be used. Select ETFs tied to index shares are also in this group.

8 Nasdaq will notify such market segments via market data protocols.

9 Price thresholds are used instead of Volatility Guards. See 6.3.
Baltic and Icelandic markets:
Baltic shares and Fund units

<table>
<thead>
<tr>
<th>Icelandic shares</th>
<th>10%</th>
<th>15%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icelandic index shares (OMXÍ8) and selected shares</td>
<td>3%</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Icelandic shares and ETFs</td>
<td>5% or 10% depending on liquidity</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Special cases**
If a Fill-or-Kill (IOC + Min Quantity = Total volume) Order would lead to a Trade outside the range, the entire Order will be cancelled without executing any Trades. This will never lead to any trading interruptions. Fill-and-Kill Orders can Trade in part within the range, but as soon as a proposed Trade is outside the range the volatility guard will activate. The remainder volume of the Order will be entered into the auction as regular “IOC” and participate with the remaining volume.

Routed Orders will participate in an auction caused by a Volatility Guard. At the end of the auction, the Smart Order Routing would continue as normal on any remaining shares.

---

10 The dynamic threshold levels for individual shares are published in market notices.
Appendix N: Nordic@Mid

**Nordic@Mid definition**

Nordic@Mid offers separate continuous crossing of mid-point 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.

Nordic@Mid Orders are Non-displayed, and they are executed solely against other Nordic@Mid Orders at the midpoint of the reference prices. Published visible Best Bid and Offer (BBO) from Nasdaq Nordic central Order Book is used as references price in shares admitted to trading in Copenhagen, Helsinki, Iceland and Stockholm. For Norwegian shares traded on Nasdaq Stockholm and First North Stockholm, Oslo Børs BBO is used as reference price.

Nordic@Mid covers Nasdaq Nordic cash equity markets, including First North markets, in Stockholm, Helsinki, Copenhagen and Iceland as well as Norwegian shares admitted to trading in Nasdaq Stockholm and First North Stockholm as follows:

<table>
<thead>
<tr>
<th>Market/segment</th>
<th>Order Books in scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copenhagen shares</td>
<td>all Order Books</td>
</tr>
<tr>
<td>Helsinki shares</td>
<td>all Order Books</td>
</tr>
<tr>
<td>Stockholm shares</td>
<td>all Order Books</td>
</tr>
<tr>
<td>Iceland shares</td>
<td>all Order Books</td>
</tr>
<tr>
<td>Norwegian shares</td>
<td>all Order Books</td>
</tr>
</tbody>
</table>

**Trading Sessions and Validity**

Matching takes place during continuous trading.

Order entry and modification is possible during continuous trading. Order entry or modification is not possible during opening call but possible during non-scheduled intra-day calls (i.e. volatility halts and trading/matching halts) (no matching however occurs). Order cancellation is possible until end of pre-close phase. Order price is automatically re-priced by the system when the reference price changes.

Supported optional Order attributes: MAQ and Limit price.

TIF attributes supported are Day, IOC, GTT, Good-till-market close. Any open Orders will be cancelled by the system after market close.

Orders are non-displayed and no prices or volumes or any information of the Orders will be displayed in public feed.

**Workflow**

See picture below.
1. Order entry, validation and modification
Order entry to Nordic@Mid crossing requires that
- Order Book is Nordic@Mid eligible,
- participant sends the Order to Nordic@Mid execution,
- Order size ≥ the minimum Order size,
- Order is inserted as a Nordic@Mid Order with peg type midpoint, without any offset.
If these requirements are not met, the Order is rejected. Size of an Order is validated using previous closing price of the Order Book. Order modification by a user results in the same validation whereas partial execution of the Order resulting unfilled part being below the minimum does not.

Nordic@Mid 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.

2. Matching
All Orders are matched at the midpoint of BBO. Matching rules: internal-quantity-time. An Order with larger quantity will be given priority over Orders with less quantity. Partial fill, or cancel down quantity of an Order, will result in an Order losing its priority. Where two Orders share the same quantity, Time priority will apply.

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. There will be no rounding of Order price to a less aggressive price.

3. Abnormal market conditions
Order price is automatically re-priced by the system when the reference price changes. If reference price is not available, Nordic@Mid Orders are suspended 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.
• external market data is not available from Oslo Børs.
Suspended Orders remain in the Order Book and are unsuspended by the system at the moment the reason of suspension is over.

4. Total separation of Nordic@Mid and central Order Book matching
Nordic@Mid Orders cannot interact with central Order Book Orders: Orders are executed solely against other Nordic@Mid Orders.

5. Post-Trade transparency
Executed Trades are published real time via the public Nasdaq Nordic feed without counterparty information. End of day trade counterparty publication follows the central Order Book model. Nordic@Mid executions are flagged so that they can be identified (“Nordic@Mid Trade”).

6. Trading statistics
Executed Trades do not update the Last price, High/low, Average price, VWAP or have any effect on BBO in the central Order Book.

Trade execution does not trigger a Volatility Guard halt.

Executed Trades update Turnover.

7. Clearing
Clearing follows the clearing model of the Order Book/participant: CCP/bilateral and self-clearing.

Comparison matrix to Non-displayed Orders in central Order Book

<table>
<thead>
<tr>
<th></th>
<th>Nordic@Mid non-displayed Orders</th>
<th>Non-displayed Orders in central Order Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument scope</td>
<td>Nasdaq Copenhagen, Helsinki, Stockholm and Iceland: all shares</td>
<td>All shares.</td>
</tr>
<tr>
<td></td>
<td>Norwegian shares: All Norwegian shares on Nasdaq Stockholm and First North Stockholm</td>
<td></td>
</tr>
<tr>
<td>Minimum Order size</td>
<td>Copenhagen, Helsinki, Stockholm and Iceland shares:</td>
<td>According to MiFID Large in Scale criteria: 50.000 – 500.000 EUR depending on ADT</td>
</tr>
<tr>
<td></td>
<td>&gt; 0 DKK /0 EUR / 0 SEK/ 0 ISK.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norwegian shares: &gt; 0 NOK</td>
<td></td>
</tr>
<tr>
<td>Reference price pegging</td>
<td>Mid-point peg.</td>
<td>Primary peg, Mid-point peg and Market peg.</td>
</tr>
<tr>
<td>Offset available</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Limit Price</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>MAQ</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Time-in-Force attributes</td>
<td>Immediate-or-Cancel and Day Orders. Open Orders will be cancelled by the Trading System after market close.</td>
<td>Immediate-or-Cancel, Day Orders and Good-till-cancelled Orders.</td>
</tr>
</tbody>
</table>
Matching price: Actual mid-point is always used. No rounding of Order price to a less aggressive price.
According to tick size table, i.e. mid-point peg may round to a less aggressive price.


8. Minimum Order size

Minimum Order size is an equivalent number in shares of following thresholds.

Copenhagen, Helsinki, Stockholm and Iceland shares:
> 0 DKK / 0 EUR / 0 SEK / 0 ISK.

Norwegian shares:
> 0 NOK

9. Nordic@Mid matching examples

1. Matching of Nordic@Mid Orders without Limit Price and Minimum Acceptable Quantity

Central Order Book, BBO = 12,20 – 12,23; midpoint of BBO = 12,215

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order#</td>
<td>Time</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Nordic@Mid buy Order #1 is entered with a volume of 10000 and without Limit or MAQ.
Nordic@Mid buy Order #2 is entered with a volume of 20000 and without Limit or MAQ.
Nordic@Mid sell Order #3 is entered with a volume of 15000 without Limit or MAQ.

Execution price is the midpoint of BBO. Sell Order #3 is executed in following order:
1) 15000 @ 12,215 (with buy Order #2)

Unfilled part (15000) of the buy Order #1 and 2 stays in Order Book.
2. Matching of Nordic@Mid Orders with Minimum Acceptable Quantity protection

Central Order Book, BBO = 12,20 – 12,23; midpoint of BBO = 12,215

<table>
<thead>
<tr>
<th>Bid</th>
<th>Order#</th>
<th>Time</th>
<th>Volume</th>
<th>Limit</th>
<th>Limit</th>
<th>Volume</th>
<th>Time</th>
<th>Ask</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>10000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30000</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(MAQ 15000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,21</td>
<td></td>
<td>10000</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Nordic@Mid sell Order #1 is entered with a volume of 30000 and MAQ of 15000 and without Limit.
Nordic@Mid sell Order #2 is entered with a volume of 10000 and Limit of 12,21 and without MAQ.
Nordic@Mid buy Order #3 is entered with a volume of 10000 and without Limit or MAQ.

Sell Order #1 has size, time priority over sell Order #2 but it is protected by MAQ of 15000, so it cannot be filled by the incoming buy Order #3. Sell Order #2 has a Limit of 12,21. Since the midpoint of BBO = 12,215 is higher than 12,21, the sell Order #2 can be filled by the incoming buy Order #3. Thus, execution takes place against sell Order #2.

Execution price is the midpoint of BBO: 10000 @ 12,215
Sell Order #1 stays in Order Book.

3. No matching of Nordic@Mid Orders – Limit Price protection

Central Order Book, BBO = 12,20 – 12,23; midpoint of BBO = 12,215

<table>
<thead>
<tr>
<th>Bid</th>
<th>Order#</th>
<th>Time</th>
<th>Volume</th>
<th>Limit</th>
<th>Limit</th>
<th>Volume</th>
<th>Time</th>
<th>Ask</th>
<th>Order#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>10000</td>
<td>12,24</td>
<td>12,23</td>
<td>10000</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>20000</td>
<td>12,21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nordic@Mid buy Order #1 is entered with a volume of 10000 and with Limit of 12,24 and without MAQ.
Nordic@Mid buy Order #2 is entered with a volume of 20000 and with Limit of 12,21 and without MAQ.
Nordic@Mid sell Order #3 is entered with a volume of 10000 and with Limit of 12,23 and without MAQ.

No matching takes place. Incoming sell Order #3 has a Limit of 12,23 which is higher than the midpoint of BBO = 12,215. Orders #1-#3 will stay in the Order Book. Sell Order #3 will be executed as soon as the midpoint of BBO is equal or higher than the Limit Price of sell Order #3.
Appendix O: Smart Order Routing

**Smart Order Routing**
Nasdaq Nordic offers Smart Order Routing via an Order router centrally placed near the matching engine. Outbound Smart Order Routing is offered during the continuous trading session and works in a way that if the best price is not available in the Nordics, the Order will be routed out to the supported Away Markets for matching attempt there, at that best price, before being posted in the relevant Nasdaq Nordic Order Book.

**Trading Sessions, Order types and Validity**
Submitting Routable Orders is possible during all Trading Sessions. If submitted in the auctions the Orders will stick and participate in the auction, and if the strategy is reactive (e.g. DNGY) the Order may route out after the auction. During the continuous trading session for the respective Nasdaq Nordic, Smart Order Routing is always applicable. Smart Order Routing is only available via FIX and is an attribute to the “New Order single” message.

Order management in terms of new/cancel/replace is supported. Routed Orders cannot be cancelled once they have left Nasdaq Nordic. The reason being that they will be outbound routed as a Limit IOC. Remaining volume can however, be cancelled.

For certain strategies the Routable Order can be posted also in other order book than the Nasdaq Nordic main Order Book.

Order types allowed at Order entry are Limit price Orders, Market Orders, Reserve Orders with their whole volume and Non-displayed Orders (fulfilling LIS). All time in force conditions are allowed at Order entry, however FOK Orders cannot be routable.

“STGY” and “DNGY” that come with an allowed GTC Time In Force (TIF) condition will be re-inserted with the Smart Order Routing attribute the following trading day. Those Orders will also participate in the auction with its given limit price. Any remaining volume after the auction will be subject for Smart Order Routing, according to the given strategy.

When submitting a “SCAN” or “DCAN” with TIF set to GTC, any remaining volume will be inserted as "BOOK" the next day, without Smart Order Routing out again. The strategies "DIVE" and "DMID" are not allowed in combination with TIF set to GTC. IOC Market Pegged Order will also be accepted.

All Orders will automatically be treated as limit immediate or cancel (Limit IOC) when routed.

Remaining volume after Smart Order Routing will always be posted in the Nasdaq Nordic Order Book with the original Order conditions (unless other is stated under respective Smart Order Routing strategy below).
For the “PDLE” and “DCAP” strategies, allowing Orders to passively be placed on Oslo Børs, special conditions will apply (see Smart Order Routing strategies below for details).

**Away markets**
The following Away Markets are supported:

- BATS Europe
- Turquoise
- Chi-x
- Burgundy
- Oslo Børs
- Oslo Axess

Routing decisions are based on European Best Bid Offer (EBBO), constituted by the best bid and offer from the Nasdaq Nordic and the routable venues: BATS Europe, Burgundy, Chi-X, Oslo Børs, Oslo Axess and Turquoise.

Nasdaq will on behalf of the Member forward the Order to an Introducing Broker that will be used to introduce the Order to one or several MTFs and RM. The Trade at the Away Market is therefore done in the name of the Introducing Broker, unless otherwise is specifically agreed between the Introducing Broker and the Member. Trades executed at the Away Market based on such special arrangements do not fall within this Market Model, but follow the applicable processes and regulations of the Away Market.

Based on the Away Market Trade executed by the Introducing Broker, an on-exchange Trade will be automatically created between the Introducing Broker and the Member. Practically Nasdaq Nordic will send the Trade to the CCP that will be the counterpart for both the Introducing Broker and the Member. If Away Market Trade by some reason is cancelled, the mirrored Trade towards the Member will be cancelled as well (see NMR 5.7.3).

**Routable Instruments**
Routable Instruments are CCP cleared shares traded on Away Markets:

- OBX 25, OMXC 20, OMXS 30, OMXH 25 shares
- Large Cap shares
- Mid Cap Helsinki shares
- Certain other shares that are CCP cleared (typically Mid Cap shares in Stockholm or Copenhagen that previously were Index or Large Cap)\(^\text{12}\)
- Other Norwegian shares and issuance instruments on Nasdaq Stockholm and First North Stockholm (EBBO is constituted by the best bid and offer from First North Stockholm and Oslo Børs/Oslo Axess)

For the NMID routing strategy all Nordic@Mid eligible Order books are eligible.

**Smart Order Routing strategies**

---

\(^{11}\) This additional functionality is limited to routing to Oslo Børs and Oslo Axess.

\(^{12}\) Individual order book configuration is disseminated in reference data.
**Book:** Hit Nordic Book only. Not for routing. This is the default value on all Orders.

**SCAN:** Unfilled part of the Order is sent to one or several Away Markets for a matching attempt at EBBO. If several Away markets offer an EBBO (better price than in the Nordic book), the Order may be routed to these Away markets in parallel in order to try to fill the remaining Order volume. The router will always send out the full remaining unfilled volume, leaving nothing on the central order book during the routing attempt. Routing decision will be based on price and volume by the Order router. If the visible Order volume on Away Markets at EBBO is less than the unfilled part of the Order, the router will split the volume between the Away Markets based on a priority set by the router. In-between every routing attempt to the next venue, Nordic Book will be checked.

**STGY:** This Routable Order follows the logic of a “SCAN” but the Order can be reactivated dynamically and route out again after posting in the relevant Nasdaq Nordic Order Book. This happens if there is a change in the EBBO that indicates that all, or a part can be matched elsewhere.

**DCAN:** This Routable Order follows the logic of a “SCAN” but the Order will first try to match against Nordic@Mid Orders and in a second step the Nasdaq Nordic Order Book before being routed to the relevant Away Market, with the EBBO according to the provisions set in the Market Model document for INET Nordic. To be able to match against Nordic@Mid Orders, the Routable Order must fulfill the minimum Order value requirements and other requirements according to the Market Model document.

Any remaining volume of a Routable Order after routing to the relevant Away Market will be posted in the relevant Nasdaq Nordic Order Book and will not be posted in the Away Market’s order book. Once the Order has turned to a passive Order within the Nasdaq Nordic Order Book, the Order will not be attempted routed again.

**DNGY:** This Routable Order follows the logic of a “STGY” but the Order will first try to match against Nordic@Mid Orders and in a second step the Nasdaq Nordic Order Books before being routed to the relevant Away Market, with the EBBO according to the provisions set in the Market Model document for INET Nordic. To be able to match against Nordic@Mid Orders, the Routable Order must fulfill the minimum Order value requirements and other requirements according to the Market Model document. The Order can be reactivated and route out again after posting in the relevant Nasdaq Nordic Order Book if there is a change in the EBBO that indicates that all or a part can be matched elsewhere.

**DIVE:** This routing strategy is only applicable for non-displayed midpoint pegged Orders fulfilling Large In Scale (LIS) criteria.

This Routable Order will first try to match against Nordic@Mid Orders and in a second step the Nasdaq Nordic Order Book. This Routable Order will not be routed out to any Away markets. The Routable Order will not be re-priced according to EBBO since the price is already given in the pegging instruction. The Routable Order shall first try to be executed against Nordic@Mid Orders before being posted in the relevant Nasdaq Nordic
Order Book. To be able to match against Nordic@Mid Orders the Routable Order must fulfill the minimum Order value requirements and all other criteria for Nordic@Mid according to the Market Model document. Any price update of the original Pegged Order will lead to a new match attempt and hence routing to Nordic@Mid.

**DMID:** This routing strategy is only applicable on Nordic@Mid Orders. Routing is triggered by the Market Segment moving into the closing auction, and results in the Order being routed from Nordic@Mid to the normal Nasdaq Nordic Order Book as a regular LOC (Limit On Close) with the original given limit price. If the Nordic@Mid Order has been submitted without limit price the Order will be routed as a MOC (Market On Close). Any Minimum Acceptable Quantity condition will be removed when the Order is routed.

**PDLE:** This routing strategy is only applicable to Norwegian shares admitted for secondary trading on Nasdaq Stockholm (XSTO) and on First North Stockholm (FNSE).

Designated Away Markets for this routing strategy are currently Oslo Börs and Oslo Axess. In the below description, Oslo Börs refers to both Oslo Börs and Oslo Axess.

"PDLE” allows members to submit Routable Orders with validity types Day and Good-till-Cancelled that will
- participate on opening, closing and intra-day auctions at Oslo Börs for all Norwegian shares and issuance instruments traded at XSTO and FNSE;
- during continuous trading rest passively in XSTO Order Book in the shape of a DNGY strategy for Norwegian shares on XSTO;
- during continuous trading rest passively at Oslo Börs for Norwegian shares on FNSE.

The detailed provisions for a “PDLE”:

1. Member submits an “PDLE” Order with the following attributes:
   a. The Order must be a Limit Order.
   b. Orders with validity types Day and Good-till-Cancelled are only allowed.
   c. MAQ is not allowed.

2. "PDLE” Orders that are submitted before continuous trading are routed out to Oslo Börs opening auction.

3. After the Oslo Börs auction, during continuous trading at Nasdaq Stockholm, handling of unfilled and new "PDLE” orders that are submitted after Oslo Börs auction, is arranged according to where Order Book is available for trading on Nasdaq Stockholm:
   a. In Order Books available on XSTO, unfilled “PDLE” Orders are routed back to XSTO Order Book and follow the logic of DNGY. New “PDLE” Orders submitted after Oslo Börs auction follow the DNGY logic as well.
b. In Order Books available on FNSE, unfilled “PDLE” Orders continue to be posted in Oslo Børs Order Books. New “PDLE” orders submitted during FNSE continuous trading

   i. automatically check the FNSE Order Book for best execution before being routed to Oslo Børs.
   ii. If FNSE Order Book has the best or equal price with the EBBO, the Order will be executed on FNSE.
   iii. If FNSE Order Book does not have the best price, or a portion of that Order is still outstanding, the Order is forwarded to Oslo Børs to be executed or placed in the order book on Oslo Børs, at the given limit price. These Orders will never be posted in the FNSE Order Book.

4. In case of an Intra-day auction at Oslo Børs, the logic described above applies to “PDLE” Orders submitted to XSTO: "PDLE” Orders are routed out to Oslo Børs Intra-day auction. Unfilled “PDLE” Orders are routed back to XSTO Order Book and then follow the logic of DNGY.

5. In case of Nasdaq Stockholm auction following Nasdaq Stockholm imposed Trading Halt,
   a. and a concurrent auction call in Oslo Børs, all XSTO and new FNSE “PDLE” Orders are routed to Oslo Børs auction.
   b. and continuos trading in Oslo Børs, new FNSE “PDLE” Orders are routed to Oslo Børs continuous trading.

6. From CET 16:20 CET, unfilled and new “PDLE” Orders are routed to Oslo Børs closing auction. Closing auction starts CET 16:25.

7. When Oslo Børs moves to “Post-trade” (after executed auction in order book):
   a. After this point, all new FNSE “PDLE”s will be either queued as GTCs or, if not GTC, expire (they will not try to match FNSE Order Book after the Oslo Børs moves into post-trade around CET 16:25.)
   b. After this point, all new XSTO “PDLE”s will act as DNGYs again.
   c. Around this point Nasdaq Stockholm will receive Oslo Børs closing auction trades and order cancelations for orders that were not filled. The latter XSTO ones are introduced into XSTO Order Book and will act as DNGYs while the FNSE ones will be either queued as GTCs or expire.

8. Unfilled Good-Till-Cancelled Orders are routed out to Oslo Børs Opening auction again the next trading day.

9. The “PDLE” Order will be introduced at Oslo Børs in the name of the Introducing Broker used by Nasdaq Stockholm.

10. Trades at Oslo Børs will be off-set by Nasdaq Stockholm creating a trade between the Member of Nasdaq Stockholm and the Introducing Broker. Current logics and liquidity flags for Nordic Order Routing apply.

102(125)
11. Trades will be sent in real time to the CCP.

"PDLE" Orders may be submitted, changed and cancelled during Nasdaq Stockholm pre-open session and continuous trading sessions according to the following:

<table>
<thead>
<tr>
<th>INET Market State</th>
<th>INET Symbol State</th>
<th>Oslo Symbol State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Open</td>
<td>Trading</td>
<td>Any except</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Auction Call</td>
<td></td>
</tr>
<tr>
<td>Pre-Open &amp;</td>
<td>Trading</td>
<td>Auction Call</td>
<td>Full order management. Routes out immediately.</td>
</tr>
<tr>
<td>Continuous</td>
<td></td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td>Continuous</td>
<td>Trading</td>
<td>Continuous</td>
<td>Full order management. FNSE PDLEs route out after pinging FNSE book, XSTO PDLEs booked / routed as DNGYs.</td>
</tr>
<tr>
<td>Post-Trade</td>
<td>Trading</td>
<td>Any</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td>Pre-Open &amp;</td>
<td>Halted</td>
<td>Any</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td>Continuous</td>
<td>Auction Call</td>
<td>Any except</td>
<td>Full order management. FNSE PDLEs route out to Oslo Continuous; XSTO and FNSE PDLEs route out to Oslo Auction Call.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Halted</td>
<td></td>
</tr>
</tbody>
</table>

Advanced order conditions as e.g. Reserve Orders (Iceberg Orders) are not allowed.

**NMID**: This Routable Order will first try to be executed in the Nordic@Mid within its given Limit price and then in the Nasdaq Nordic Order Book as a normal BOOK Order. The Routable Order will not be onward routed to any Away markets. To be able to be executed in Nordic@Mid, the Routable Order must fulfil the requirements for Mid-price Orders according to the Market Model document for INET Nordic.

Example:

BBO = 100 – 103

Nasdaq Nordic Order Book has three Orders.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Price</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>103</td>
<td>2000</td>
</tr>
<tr>
<td>102</td>
<td>102</td>
<td>101</td>
</tr>
<tr>
<td>1000</td>
<td>1000</td>
<td>100</td>
</tr>
<tr>
<td>2000</td>
<td>2000</td>
<td>99</td>
</tr>
</tbody>
</table>
Nordic@Mid Order Book has one Ask Order with a limit price of 101. Midprice is 101.50 in the Nasdaq Nordic Order Book.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Price</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>103</td>
<td></td>
</tr>
<tr>
<td></td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A NMID DAY Buy Order 2500@103 is entered. This Order is matched in two steps:

Trade 1: 200@101.50 (against Nordic@Mid Order)
Trade 2: 2000@103 (against Nasdaq Nordic Order Book Order)

Nasdaq Nordic Order Book after the trades. The NMID Order is now posted in the Nasdaq Nordic Order Book.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Price</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td></td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DCAP:** This routing strategy is primarily applicable to Norwegian shares admitted for secondary trading on Nasdaq Stockholm (XSTO).

Designated Away Market for this routing strategy is Oslo Börs.

This Routable Order is routed automatically to the designated Away Market’s call auction whenever the designated Away Market enters into call auction in the relevant Instrument. Routable Order that was not executed in the designated Away Market’s call auction continues to be posted in the order book of the designated Away Market.

New Routable Order, submitted outside the designated Away Market’s call auctions, follows the logic of "DCAN", but any remaining volume of a Routable Order after routing to the relevant Away Market will be posted in the designated Away Market order book and will not be routed again. Once routed to the designated Away Market, the Routable Order will not be posted in Nasdaq Nordic Order Book.

“DCAP” Orders in Norwegian shares may be submitted, changed and cancelled during Nasdaq Stockholm pre-open session and continuous trading sessions according to the following:
<table>
<thead>
<tr>
<th>INET Market State</th>
<th>INET Symbol State</th>
<th>Oslo Symbol State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Open</td>
<td>Trading</td>
<td>Any except Auction Call</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td>Pre-Open &amp; Continuous</td>
<td>Trading</td>
<td>Auction Call</td>
<td>Full order management. Routes out immediately.</td>
</tr>
<tr>
<td>Continuous</td>
<td>Trading</td>
<td>Continuous</td>
<td>Full order management.</td>
</tr>
<tr>
<td>Post-Trade</td>
<td>Trading</td>
<td>Any</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td>Pre-Open &amp; Continuous</td>
<td>Halted</td>
<td>Any</td>
<td>Queued, cancel only (including cancel down), no routing.</td>
</tr>
<tr>
<td>Continuous</td>
<td>Auction Call</td>
<td>Any except Halted</td>
<td>Full order management.</td>
</tr>
</tbody>
</table>

Advanced order conditions as e.g. Reserve Orders (Iceberg Orders) are not allowed when “DCAP” is used on Norwegian shares.

If the strategy is used on other Instruments than Norwegian shares it will behave as a “DCAN” during Trading Hours. However when the Nasdaq Order book has an auction, the Order will be sent to this auction and the Order will not be routed again.

**Special provisions for reactive routing strategies**

For the DNGY, STGY and PDLE (applicable to Norwegian shares admitted for secondary trading on Nasdaq Stockholm (XSTO)) the following configuration possibilities will apply.

The Routable Order will only be reactivated if there is a change in the EBBO that indicates that a minimum percentage of the remaining Order volume can be matched elsewhere. The minimum percentage is set per Member participant Id, and allows values equal or larger than 0%. The default value is 0% meaning that the Order will route out regardless of aggregated visible volume on one or multiple Away markets. By request from the Member the default configuration can be changed. E.g. if the Member has 100% configured, the aggregated volume at the best price must be equal or higher than the remaining Order volume for the Order to route out again.

The minimum percentage can be set per strategy.

**General provisions on Nordic@Mid strategies**

Nordic@Mid and the central Order Book, are separate Order Books and the same routable Order cannot ever be considered to be in these two Order Books at the same time. This means that for Orders with order condition NMID, DNGY or DCAN there are matching attempts in two sequential steps;
- First one when the Order first tries to be executed in the Nordic@Mid (within its given Limit price) and
- Secondly when (the remaining part of) the Order reaches the central Order Book
This means that priority in the central Order Book is given when the Order reaches the regular/central Order Book, not when the router got the Order in the first place.

More strategies will be provided going forward.
Workflow for SCAN

1. Any Order eligible for Smart Order Routing is sent through the Routing Engine and will automatically check the Nordic Book for best execution before being routed out to an external Away Market. E.g. if the spread is 100-102 in the Nasdaq Nordic Order Book, but 100-101 at an Away Market. A Limit Order with submitted price of 102, will be re-priced accordingly to 101 before trying to match (price improvement).

2. If the Nordic Book has the best price or a price that is equal to the best price then the Order will execute on the Nordic Book. If the Nordic Book does not have the best price, or a portion of that Order is still outstanding, then the system uses the EBBO (European Best Bid and Offer defined by Nasdaq Nordic) to determine which external trading venue has the best price before sending the Order on to that external venue to be executed. If several Away markets offers an EBBO (better price than the in the Nordic book), the router may, if needed, decide to route Orders to these Away markets in parallel in order to try to fill the remaining Order volume.

3. Unfilled volume will be routed to the respective MTF/RM according to the chosen Smart Order Routing strategy. The Order will be introduced in the name of the Introducing Broker at the Away Market. Trades made at other venues than Nasdaq Nordic will be executed in the name of the Introducing Broker.
4. Remaining volume will after Smart Order Routing always be posted in the Nordic book in the original Members name. Posting Orders on Away Markets is not supported.

5. Routing attribution on an Instrument not eligible for Smart Order Routing will result in a match attempt in the Nordic main Order Book according to the Order conditions. The Order will not be transferred onwards to the Introducing broker.

Other conditions

- It will only be possible to send in Routable Orders to such markets where the Member is a Member. E.g. for a Member of Nasdaq Copenhagen, only Orders in OMXC20 shares are routable.

- If the Order Book is in a halted state, the Routable Order will IOC the book with the given limit price. Since the book is in a halted state, the Order will “stick” and participate in the auction. At the end of the auction, the Smart Order Routing will continue as normal on any remaining shares.

- Nasdaq Nordic will utilize low latency market data for the Smart Order Routing decisions towards the London based venues. Due to the physical distance between London and Stockholm any market data will suffer from a slight latency which in certain situations can affect the outcome of the Smart Order Routing. Smart Order Routing is therefore done on best effort basis due to these circumstances.

- Orders with a value over EUR 2 500 000 in the applicable currency (EUR/ SEK/ DKK/ NOK) will not be accepted by Introducing Broker. The Introducing Broker may also reject orders with a limit price set at 75% passive and 25% aggressive limit away from the latest reference price (last/open/close). In addition the Introducing Broker may reject orders that risk to trigger volatility checks applied on the relevant Away market. Typically these volatility checks are divided into two types. A static %-age away from the last auction phase (e.g. 10%) and a dynamic %-age away from the last price (e.g. 5%).

- For the DCAN, SCAN, DNGY, DCAP and STGY strategies, any reject from Introducing Broker on an IOC Order sent to an Away market will be treated as if the order simply did not fill, and no reject message will be relayed back to the Member. The order will continue being processed according to the given strategy and the order may route based on the next EBBO update. Normally the order would be posted in Nasdaq Order book, but the order could also route out to Away markets. If routed to other Away market the reject handling might be repeated and the process iterates. If the strategy is reactive, the order posted in Nasdaq Order book may route to Away markets again (and if rejected by Introducing Broker, be re-posted without any priority).

- A Market Order that is routable will be re-priced according to EBBO and be given a limit price according to current EBBO. The Order is thereafter changed to a
Limit Order with Time In Force IOC. This means that the Order changes from being a Market Order to a Limit Order.

- For the “PDLE” and “DCAP” strategies, allowing Orders to passively be placed on Oslo Børs, special conditions will apply (see Smart Order Routing strategies above for details).

**Mirrored on-exchange Trade**

When a Member has submitted a Routable Order, which leads to an Away Market transaction, a mirroring Trade will instantly and automatically be created between the Member and the Introducing Broker at the same price on the applicable Nasdaq Nordic. The Member and the Introducing Broker will thereafter be bound such on-exchange Trade between each other according to the NMR. That mirroring Trade will instantly and automatically be sent to the CCP for clearing in real time, just as any other on-exchange CCP-cleared Trade. The mirrored Trade shall, from the Member’s point of view, be seen as any other on-exchange Trade (e.g. for transaction reporting obligations).

The execution report that is sent to the Member will display the Away Market on which the first Trade was made (by exploring the Liquidity code).

The mirrored on-exchange routed Trade will be published in real time with Trade type “Standard Routed Trade”.

**Agreement**

In order to take use of the Smart Order Routing service the Member needs to sign an application/agreement with Nasdaq Nordic. The current version of the Terms and conditions for the service are available on the Nasdaq Nordic website.

**Default routing strategy**

By request of the Member, a default order routing strategy can be set on the Members own FIX port(s). By applying the default setting, the Member allows Nasdaq Nordic to automatically apply the Member chosen order routing strategy on Orders submitted via the FIX port(s).

Nasdaq Nordic will however not apply the given default routing strategy on Orders with conditions that normally would lead to a reject by the router. E.g. If the Member has a default order routing strategy set to “DNGY” and the Member submits a FOK the default setting is disregarded since a “DNGY” and FOK combination would be rejected by the router.

In those cases when Nasdaq Nordic will not apply the default setting, the Order will be treated as a regular non-routable order designated for the Lit Order book, honoring the order conditions specified by the Member.
Appendix P: Market Maker Order (MMO)

**MMO definition**

A MMO can be matched, and create a Trade, if certain conditions are fulfilled.

MMOs will be offered to Market Makers on warrants and certificates and is only possible to enter via the OUCH-protocol. MMOs will be clearly flagged in the public market data feeds.

**Principle workflow**

![Workflow Diagram](image)

**Figure 1:**

The Market Maker (MM) sends two quotes B100@100 and S100@110 which are published on ITCH.

Broker 1 sends in a B 50@110, which matches the offer. The order is not published on ITCH. The exchange sends a RFQ to the MM and start the timer for the suspended state. The MM refresh the quote within the time frame and a trade is done with message sent to both parties. The trade is also published on ITCH.

The incoming aggressive order is not visible on ITCH as it is never placed into the order book.
1. One or multiple MMO(s) are entered by the Market Maker. MMOs are distinguished in the public market data feed with an identification to show that the Order is MMO type of Orders.

2. If there is an attempt to match with a MMO, a "MMO Refresh Request Message" is sent to the Market Maker, in combination with putting the Order Book into a "suspended" state, with no matching occurring.

3. Trading resumes once the Market Maker submits a new MMO with instruction to release the Order Book from the halted state, or failing that, after a specified timeout period.

**MMO details**

MMO is enabled on a per Order Book basis and the Market Maker has the option to use the MMO or not. The MMO should be displayed and needs to carry a limit price. Non-displayed MMOs will not be accepted. The MMO comes in two flavors, a regular MMO, and the MMO with the extra instruction to release the Order Book during a halt. Only one Market Maker can exist per Instrument.

A new MMO with the instruction to release the Order Book or a timeout will trigger matching to commence and activation of possible new Orders entered during the time frame were matching was halted. During this time frame the Market Maker has the possibility to modify/cancel existing MMOs and submit new MMOs into the Order Book. The Market Maker should send in a regular MMO on one side first (will not release the Order Book), and then a second MMO on the other side. The second MMO should contain the instruction to immediate release the Order Book.

New MMOs entered during the halt will always be released first into the Order Book when matching commences, to secure that MMOs will be passive in the Order Book. Other Orders entered during the halted phase will be queued, and released into the book in the sequential order they were sent into the matching engine, but after any new MMOs.

MMO protection applies only to the Market Maker's BBO. During a reactivation, multiple MMOs may be executed. There is no protection on aggressive MMOs crossing resting Orders in the Order Book, and protection is only activated during the continuous market. There is no protection during an auction.

**MMO timeout period**

The timeout period is set to 600 milliseconds (0.6 seconds).
Appendix Q1: Self-Match Prevention

Self-Match Prevention definition

Self-Match Prevention is an optional functionality that the Member can choose to use. The aim of the functionality is to prevent two Orders from the same User Account (UserID) from a specific MPID to execute against each other. For the avoidance of doubt, it will not prevent matching of Orders from different UserID.

The functionality is in particular designed for those Members engaged in market making or liquidity provider activities on Nasdaq Nordic.

Description of the functionality

A new configuration on UserID can be ordered by the Member that will identify on which UserID Self-Match Prevention is applicable. Should an Order that is better than the current best bid or ask be sent to the Order Book (the "Incoming Order"), and if there is an opposite side Order from the same UserID (specific trader), such opposite Order will be canceled if it would have matched with the Incoming Order. The Member will get a cancellation message hereof.

Self-Match Prevention applies to Continuous Trading only and is not supported in auctions.

Example

Aggressive sell order:

<table>
<thead>
<tr>
<th>Price</th>
<th>Qty</th>
<th>MPID</th>
<th>User</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>250</td>
<td>AAA</td>
<td>LPS001</td>
</tr>
</tbody>
</table>

Bids*

<table>
<thead>
<tr>
<th>Price</th>
<th>Qty</th>
<th>MPID</th>
<th>User</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>LPS002</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>LPS001</td>
<td>Self-cross prevention applies, order is cancelled</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>ABCDEF</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>BBB</td>
<td>B00001</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>CCC</td>
<td>C00001</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>DDD</td>
<td>D00001</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>EEE</td>
<td>E00001</td>
<td>Left in book</td>
</tr>
<tr>
<td>99</td>
<td>50</td>
<td>AAA</td>
<td>BCDEFG</td>
<td>Left in book</td>
</tr>
</tbody>
</table>

*Book ranked in Price, Internal, Time order.
Limitations
Self-Match Prevention applies to the individual MPID + UserID (trader) pair only, not across User Accounts (i.e. it does not cover all users for an MPID). Self-Match Prevention will not apply for Nordic@Mid Orders.
Appendix Q2: Self-Trade Prevention

Self-Trade Prevention definition

The Self-Trade Prevention (STP) functionality may be used by Members to avoid unintentional internal trading by preventing certain Member Orders (within the same MPID) from executing against each other. The aim with the functionality is to facilitate Members' compliance and risk management duties and needs.

The STP functionality can be activated on Order instruction level without any configuration. This allows greater flexibility; the Member may for example create protected trader groups. As the STP actions may also be expanded into multiple options, the functionality may be used to target different regulatory and compliance requirements within the Member.

Description of the functionality

The inbound order entry protocols (OUCH and FIX) contain three fields: STP Level, STP Action and STP Trader Group. By actively populating these fields, the STP functionality is activated, no other configuration is needed. The fields will also be displayed on associated Drop copies. All technical details including protocol specifications can be found on the Nasdaq Nordic website.

STP Level

STP Level indicates the scope of STP protection set on the Order. The Member can choose between three levels:

1. MPID + Trader ID (as the legacy STP service Self-Match Prevention)
2. MPID
3. MPID + Specified Trader Group

The idea with Specified Trader Group is that the Member can decide that certain Orders should not interact. This enables varying usage of the functionality for the Member. E.g. Algo engine flow A and B should not interact with each other.

STP Action

STP Action indicates the action that should be undertaken by the trading system in order to prevent a Self-trade. Possible actions:

1. Cancel passive (default, as the legacy STP service Self-Match Prevention)
2. Cancel aggressive
3. Cancel both
4. Create technical transfer transaction
By messaging standards, the technical transfer transaction looks like a trade, but is not an exchange trade and therefore not sent to the CCP for clearing (even if it is a CCP eligible Order book), and not published externally on any market data services. The technical transfer transaction enables the Member to take the needed internal re-allocation actions.

**STP Trader Group**

The STP Trader Group is assigned by the Member and identifies Member Orders that should not interact, i.e. two Orders with the same code would be prevented to match.

**Order condition requirements for STP**

To use STP, the parameters must match for the respective passive and aggressive Order. If the conditions do not correspond, STP will not be enabled and a trade may occur.

In case the STP Actions are differently assigned on the respective Orders, the set action on the aggressive Order will be honoured.

STP can be used on all Nasdaq Nordic Order books, including Nordic@Mid. The functionality is only active during continuous trading. STP does not give protection to Auction trades, Routable Orders, Algo strategy Orders and Trade Reports.
Example

Aggressive sell order.

<table>
<thead>
<tr>
<th>Price</th>
<th>Qty</th>
<th>MPID</th>
<th>User</th>
<th>STP Level</th>
<th>STP Action</th>
<th>STP Trader Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>250</td>
<td>AAA</td>
<td>LPS002</td>
<td>3</td>
<td>4</td>
<td>AA</td>
</tr>
</tbody>
</table>

Bids*

<table>
<thead>
<tr>
<th>Price</th>
<th>Qty</th>
<th>MPID</th>
<th>User</th>
<th>STP Level</th>
<th>STP Action</th>
<th>STP Trader Group</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>LPS002</td>
<td>1</td>
<td>1</td>
<td>AA</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>LPS001</td>
<td>3</td>
<td>1</td>
<td>AA</td>
<td>Transfer</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>ABCDEF</td>
<td>3</td>
<td>4</td>
<td>AB</td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>AAA</td>
<td>LPS002</td>
<td></td>
<td></td>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>CCC</td>
<td>C00001</td>
<td></td>
<td></td>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>DDD</td>
<td>D00001</td>
<td></td>
<td></td>
<td></td>
<td>Left in book</td>
</tr>
<tr>
<td>100</td>
<td>50</td>
<td>EEE</td>
<td>E00001</td>
<td></td>
<td></td>
<td></td>
<td>Left in book</td>
</tr>
<tr>
<td>99</td>
<td>50</td>
<td>AAA</td>
<td>BCDEFG</td>
<td></td>
<td></td>
<td></td>
<td>Left in book</td>
</tr>
</tbody>
</table>

*Book ranked in Price, Internal, Time order.
Appendix R: Top Of Book

Top Of Book description

Top Of Book ("TOP") Order is an optional Order condition. The aim of the functionality is to offer an Order type that result in narrower spreads or more volume on the current best price level. Order needs to fullfill will certain criteria in order to be accepted as a TOP Order. By using the order condition, Member can get the best priority according to current matching logics and trade before other participants, but only if their Order reduces the spread of the Order Book. If the Order tries to match aggressively it is rejected.

Description of the functionality and applicable criteria

TOP Order shall be accepted and added to the Order Book if its limit price is narrowing but not crossing the current Order Book spread, i.e. if the limit of a buy (sell) TOP Order is greater (smaller) than the best visible bid (ask) in the Order Book and smaller (greater) than the best visible ask (bid). TOP Order fulfilling the described criteria may however be fully or partially executed against posted Non-displayed Orders. A TOP Order needs to also fulfill certain minimum Order value criteria in order to be accepted. The TOP Order must always have a value exceeding EUR 5000, SEK 50 000 or DKK and NOK 45 000.

NB. In addition a TOP Order that meets the minimum Order value criteria, shall also be accepted and added to the Order Book if its limit price is equal to the current Order Book spread (BBO and the value of existing orders at BBO (same side) does not exceed the value of EUR 7 500, SEK 75 000 or DKK and NOK 67 500.

Detailed provisions for TOP Orders:
- Available for all MPID's.
- TOP Order is only allowed for CCP-cleared securities.
- A TOP Order must always be a displayed Limit Order which improves the spread.
  Non-displayed TOP Orders are not allowed.
- Time in Force must be DAY or GTT (IOC and FOK is not allowed).
- Advanced order conditions are not allowed, including (but not necessarily limited to): Reserve (Iceberg); MAQ; Routing strategies; N@M; Non-display; Pegging.
- Orders are only accepted during Continuous trading, but can participate in auctions after entry.
- A new liquidity flag indicates a TOP Order execution.
- A formally valid Limit Order which does not fullfill qualifications set for TOP Order, i.e. which fails as it would execute or not reduce the spread, is converted to an IOC and technically canceled (not rejected).

TOP liquidity provider
Possibility to utilize the TOP Order functionality is available for all MPIDs. Special terms will however be offered to TOP Order users that have assigned as TOP liquidity providers.

**Examples**

**NASDAQ OMX TOP EXAMPLES**

**Scenario 1:**
Incoming TOP buy 1000@12
Result: Order accepted and matches non-displayed order according to current functionality.

**NASDAQ OMX TOP EXAMPLES**

**Scenario 2:**
Incoming TOP buy 1000@11
Result: Order accepted since it better the spread according to current functionality.
### NASDAQ OMX TOP EXAMPLES

#### Scenario 3:

Incoming TOP buy 1000@10
Result: Order accepted since existing orders on the same side with a value of EUR 1000 (100*10) is less than the EUR 7,500 limit.

#### Scenario 4:

Incoming TOP buy 1000@9
Result: Order rejected since orders does not improve or align to the spread according to current functionality.

<table>
<thead>
<tr>
<th>Bid Displayed</th>
<th>Price</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-</td>
<td>Non-</td>
</tr>
<tr>
<td></td>
<td>EUR</td>
<td>Displayed</td>
</tr>
<tr>
<td>Displayed</td>
<td>displayed</td>
<td>displayed</td>
</tr>
<tr>
<td>14</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
**NASDAQ OMX TOP EXAMPLES**

**Scenario 5:**
Incoming TOP buy 1000@13
Result: Order rejected since it crosses the visible spread according to current functionality.

**NASDAQ OMX TOP EXAMPLES**

**Scenario 6:**
Incoming TOP buy 1000@10
Result: Order rejected since the value of existing orders on the same side is 10000 (1000*10) which exceeds the limit of EUR 7500 according to new functionality.
**NASDAQ OMX TOP EXAMPLES**

**Scenario 7:**
Incoming TOP buy 100@10
Result: Order rejected since the value of the order is less than the limit of EUR 3,000 according to new functionality.

<table>
<thead>
<tr>
<th>Bid</th>
<th>Price</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displayed</td>
<td>Non-</td>
<td>EUR</td>
</tr>
<tr>
<td></td>
<td>displayed</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>5000</td>
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</tr>
<tr>
<td>13</td>
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<td></td>
</tr>
<tr>
<td>12</td>
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<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**NASDAQ OMX TOP EXAMPLES**

**Scenario 8:**
Incoming TOP buy 100@11
Result: Order rejected since the value of the order is less than the limit of EUR 3,000 according to new functionality.
Appendix S: Scheduled Intraday Call

Segments comprising Scheduled Intraday Call

Denmark:
- Mid Cap shares
- Small Cap shares
- First North

Finland:
- Mid Cap shares
- Small Cap shares
- First North

Sweden:
- Small Cap shares

Please note that for Denmark and Sweden the scheduled intraday auction does not apply to Mid Cap shares and Small Cap that have been but are no longer within the Large Cap segments or main indices (OMXC20; OMXH25; OMXS30).
Appendix T: Sold-Out Buy-Back

Sold-Out Buy-Back (SO) is available on Warrants, Certificates and Exchange Traded Note market segments on Nasdaq Copenhagen, Nasdaq Helsinki and Nasdaq Stockholm.

The functionality is optional for Market Makers and can be used in exceptional circumstances where the instrument has been sold-out.

To make use of the SO, the Market Maker will contact Nasdaq Nordic and request for the order book impacted to be placed in Sold-Out Buy-Back. Nasdaq Nordic will initiate the Sold-Out Buy-Back with the sending of a Note Code and will flush the order book. This can occur at any point during the trading day and the Sold-Out Buy-Back note code can persist overnight.

After the Note Code is applied, the Market Maker will only be able to send in buy orders. Under the Sold-Out Buy-Back, other participants will only be allowed to send in sell orders until the SO is terminated. During the SO, irrespective of the Time-In-Force, all sell orders are treated as Immediate-or-cancel (IOC). Any buy orders that are not sent in by the Market Maker during the Sold-Out Buy-Back will be rejected.

Once the Market Maker is satisfied with its inventory, they will contact Nasdaq Nordic. The Note Code will be removed from the order book and the order book will be flushed. After the SO is lifted, trading will resume normally and according to the trading phase ongoing at that time.

The start of the Sold-Out Buy-Back is indicated by the dissemination of the note code for the impacted order book through the "Order Book Directory" message in ITCH. The end of the Sold-Out Buy-Back and the removal of the Note Code leads to ITCH relaying an "Order Book Directory" message with an updated Note Code field for the order book.
Appendix U: Safeguards in opening and closing auctions

Auction safeguards are to limit unexpected impact to opening or closing prices due to erroneous or extraordinary order entries during opening and closing auctions. Where these are applied, the auction safeguards will trigger a 3-minute extension period to the opening and closing auction in a single Order Book, if the proposed auction price of that Order Book would deviate too much in percentage from a reference price at the time of the uncross. Respective NASDAQ markets and instruments where auctions safeguards are used are presented in the table below.

The last sale price is used as a reference price. In the opening auction, the last sale price is normally the closing price (adjusted if corporate actions) from the previous day.

**Auction extension period**
The extension period may only be triggered at the time of the uncross.

When the extension is triggered in an Order Book in the opening auction, the continuous trading in that Order Book starts 3 minutes later than normal scheduled time. Other Order Books open at normal scheduled time.

When the extension is triggered in an Order Book in the closing auction, the auction in that Order Book ends approximately three minutes later than normally. In other Order Books, the closing auction ends at normal time.

The extension period follows the respective order management rules, market by order transparency and equilibrium data (Net Order Imbalance Indicator) dissemination applied to the pre-open and pre-close periods.

Information on the extension is disseminated in the Net Order Imbalance Indicator message during the extension.

The extension period ends automatically and will not be prolonged, even though the auction price would fall outside the auction safeguard limits.

**Auction safeguard configuration**

The Dynamic Volatility Guards set on Order Book level according to liquidity bands are the basis for the percentages used as safeguards in the opening and closing auctions:

- in the opening auction the auction safeguard’s value is in percentages two (2) times the value of the Dynamic Volatility Guard and
- in the closing auction the auction safeguard’s value is in percentages the same as the value of the Dynamic Volatility Guard.

The auction safeguards are applied to those shares and ETFs/ Fund Units on following markets, including respective First North markets, that also have Volatility Guards during continuous trading. The following percentages are applied under normal market conditions:
* Nasdaq Copenhagen* and Helsinki only in opening auction.
** Not applicable to Norwegian shares segments on Nasdaq Stockholm and First North Stockholm since there is no opening or closing auction on these segments.
*** Only applicable to opening auction on ETF segments on Nasdaq Stockholm as there is no closing auction on these segments.

Updates widening the auction safeguards thresholds before the opening call or intraday may occur in rare situations when there is a natural and for the market well known movement in the instrument. Intraday updates of the thresholds will not be made available via the public data feeds.

<table>
<thead>
<tr>
<th>Market</th>
<th>Liquidity band</th>
<th>Opening auction</th>
<th>Closing auction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasdaq Copenhagen*, Helsinki* and Stockholm</td>
<td>OMXS30/OMXH25/OMXC20 shares</td>
<td>+/-6%</td>
<td>+/-3%</td>
</tr>
<tr>
<td></td>
<td>Other shares** and ETFs*** or other market segments</td>
<td>+/-10%</td>
<td>+/-5%</td>
</tr>
<tr>
<td></td>
<td>First North and liquidity group C shares</td>
<td>+/-20%</td>
<td>+/-10%</td>
</tr>
<tr>
<td></td>
<td>Penny shares</td>
<td>+/-50/80/100/200%</td>
<td>+/-25/40/50/100%</td>
</tr>
<tr>
<td>Nasdaq Tallinn, Vilnius and Riga</td>
<td>Shares and Fund Units</td>
<td>+/-20%</td>
<td>+/-10%</td>
</tr>
<tr>
<td>Nasdaq Iceland</td>
<td>OMXI8 and selected shares</td>
<td>+/-6%</td>
<td>+/-3%</td>
</tr>
<tr>
<td></td>
<td>Other shares and ETFs</td>
<td>+/-10/20%</td>
<td>+/-5/10%</td>
</tr>
</tbody>
</table>

13 The situations when auction safeguards could be widened follows the routine applied for the Dynamic Volatility Thresholds: in order to avoid unnecessary trading halts in the index shares (OMXS30/OMXC20/OMXH25/OMXI8), Nasdaq Nordic will on best effort basis apply in certain situations a special routine on selected shares to increase the dynamic volatility thresholds to 5% – and hence the auction safeguards to 10% in the opening call and 5% in the closing call. This routine will be used when the issuer has a planned company announcement of a quarterly or yearly result that will be published during the continuous trading session. The widened thresholds for the respective share will be used throughout such trading day and normal thresholds will be used on following trading day. Select ETFs tied to index shares follow also this routine.

14 Nasdaq will notify such market segments via market data protocols.