

Xetra® BEST

Market Model

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1 Introduction

1.1 Objective

This document describes the market model of the Xetra BEST facility within Xetra. Xetra BEST offers a Xetra participant (BEST Executor) the possibility to execute order flow provided by his customers or by customers of other participants (Flow Provider) before this order flow is executed in the order book. The functionality guarantees customers of the BEST Executor a better price in Xetra BEST than a price resulting from an execution based on the current Xetra order book situation.

This market model details the orders and quotes which are subject to Xetra BEST and how these orders and quotes interact with the Xetra order book. The interaction of Xetra BEST with the Discretionary Order is not described in this document as this order type is currently not used at the Frankfurter Wertpapierbörse (Frankfurt Stock Exchange, FWB).

The legally binding regulations for trading on the FWB are set out in the rules and regulations of FWB, particularly in the "Exchange Rules for the Frankfurter Wertpapierbörse (FWB)" and in the "Conditions for Transactions on the Frankfurter Wertpapierbörse (FWB)". The present market model is based on existing rules and regulations but might contain additional provisions.

The market model reflects the technical status of Xetra Release 10.0.

1.2 Document Structure

The document is structured as follows: After the introduction, the background and motivation of the functionality is explained in section 2. Based on this, section 3 describes the basic characteristics of the Xetra BEST functionality. Section 4 addresses the different roles of the Xetra members in the framework of Xetra BEST. Trading models valid for Xetra BEST are characterized in section 5. In section 6, the requirements concerning the specification of Xetra BEST quotes are described in detail. Sections 7 and 8 refer to preferencing and the special requirements for orders for which the Xetra BEST service is used. The flow of trading is explained in section 9. Based on this, the interaction of Xetra BEST and the order book during auctions (section 10) and continuous trading (section 11) is detailed using order book and execution examples. An overview of the selection process for orders (section 12), the handling of orders in case of events affecting prices (section 13) as well as reporting and publication of Xetra BEST trades (section 14) conclude the document.

A glossary of terms presented here is located at the end of this document.

2 Background and Motivation

Customers are demanding immediate and complete execution of their order and a reliable price improvement in comparison to a liquid reference market. Deutsche Börse addresses these requirements and provides a best execution facility within Xetra. Xetra BEST is based on a hybrid market model, i.e. it provides both order book and market making components within one trading model.

With the provision of this market model, Deutsche Börse ensures efficiency and liquidity concentration in a competitive market environment and a consolidation of all orders on one central platform which is the center of market communication between all participants. Deutsche Börse prevents fragmentation into separate and independent market places and guarantees supervised price quality and transparency for investors. Xetra will continue to serve as a central reference market. All orders will be executed in Xetra and all executions will be published in real-time from one central source.

From a Xetra member's point of view, the Xetra BEST functionality allows to provide a best execution¹ service to their customers. Xetra BEST offers the functionality that enables a specific member to have a preferential access to his own agent order flow ("BEST Executor"). In addition, the BEST Executor might have agreements with other Xetra members ("Flow Providers") who will directly send their order flow (preferencing) to be executed against the BEST Executor using the existing Xetra network.

With the provision of Xetra BEST, a price quality stamp is established that will simplify communication to customers and ease regulatory supervision: The Xetra BEST market model guarantees ex ante a best execution.

From the customer's point of view, the Xetra BEST functionality always guarantees a best execution in the sense that orders will be executed better than in the current Xetra order book. Beyond this, the Xetra BEST market model eliminates partial executions for orders executed against the BEST quote (see chapter 3).

The market model secures credibility of the order book by ensuring consistent price-/time priority of Xetra BEST. Xetra BEST avoids that orders remain sitting in the order book, while trades are concluded in Xetra BEST at prices that would lead to the execution of those orders.

¹ This document defines best execution as an execution of orders at a price better than the price of an execution within the order book of Xetra.

3 Xetra BEST Principles

The following five central principles serve as the basis for the Xetra BEST facility described in the subsequent chapters:

(a) BEST execution principle

Xetra BEST trades are only possible if the Xetra BEST order either receives a price improvement in comparison to the current visible best bid/best ask limits of the order book or receives a better price for the size of the Xetra BEST order than the volume-weighted average of the limits for this size in the order book. Hidden orders with an invisible limit better than the visible bid/ask limit are not considered in the calculation of the average price. If invisible limits of hidden orders better than the visible bid/ask limit exist which are also better as or equal to the potential execution price in Xetra BEST, no Xetra BEST trade is concluded.

(b) Protection of order book consistency

If a Xetra BEST trade is concluded and the execution price is determined in Xetra BEST which is lower than or equal to the current best bid limit or higher than or equal to the current best ask limit in the order book, all orders in the Xetra order book with limits better than or equal to the Xetra BEST transaction price are executed first against the BEST Executor.

(c) Ex ante entry of quotes/quote parameters

By specifying quote parameters (see chapter 6.2), the BEST Executor expresses his willingness to provide best execution. These quote parameters have to be entered into the system before a Xetra BEST order arrives. There is no possibility to have a “look” at the order and then – with a time-lag – to decide whether the order is executed within Xetra BEST or not.

(d) Automatic entry in the Xetra order book

If an execution within Xetra BEST is not immediately possible (based on the conditions defined in this document), the customer’s order is automatically entered in the Xetra order book.

(e) No partial executions

Orders executed within Xetra BEST are executed without partial executions. However, partial executions for customer orders entered in the Xetra order book are still possible.

4 Roles

4.1 Best Executor

Xetra BEST allows members registered as BEST Executor in a given equity to offer special services to their own customers or customers of other Xetra members by providing a best execution facility for that equity. The Xetra BEST functionality ensures interaction with specific order flow and provides a reliable preferential access to own or preferenced order flow for the BEST Executor if he provides best execution.

In order to provide best execution, the BEST Executor enters a special quote type – the so-called “BEST quote” – that is specified via the use of quote parameters. BEST quotes are private quotes that are not shown in the order book. BEST Executors are able to decide whether they provide private quotes, i.e. there is no obligation to provide BEST quotes.

Customer orders will be sent to the Xetra BEST Executor through the broker-internal order routing system (own order flow) or by a Flow Provider (third party order flow). The BEST Executor provides BEST quotes to the Xetra BEST matching functionality. The matching algorithm within Xetra BEST also has access to the current Xetra inside market (best bid/ask, quantities at best bid/ask and the complete order book depth).

Only those members which have previously been registered and set up on Xetra as BEST Executor are allowed to act as a BEST Executor, i.e. all other market participants are not permitted to provide this best execution function.

The Management Board may decide if and in which securities BEST Executors are obliged to provide liquidity in the Xetra order book as Liquidity Managers. In this case, BEST Executors, analogously to Designated Sponsoring, are obliged to provide liquidity in the central limit order book via a special account during the trading day. For this purpose, BEST Executors enter quotes in the order book in accordance with the minimum quoting volume and maximum spread assigned to the security in question, respecting the quoting period, that is the quoting duration defined by the Exchange.

4.2 Order Flow Providers

Xetra BEST enables Xetra members which do not want to provide a best execution facility themselves to route their order flow to a Xetra BEST Executor which then also provides best execution for the customers of these Flow Providers. Where Order Flow Providers route orders to a BEST Executor, it is the Order Flow Provider who remains responsible for these orders.

5 Trading Model

All listed equities and ETFs/ETCs will be available for execution in Xetra BEST if they are traded in the trading model continuous trading (interrupted by auctions) and have a round lot size of 1.

6 Xetra BEST Quotes/Quote Parameters

Xetra BEST quotes (quote parameters) may be entered during the pre-trading phase, the main trading phase and the post-trading phase. Quotes may be modified at any time during the trading day, although regulations may restrict deletion of order book quotes.

The following paragraphs only refer to Xetra BEST quotes.

6.1 Overview

A Xetra BEST quote is a quote that is derived - upon the arrival of a BEST order - from the set of quote parameters (previously entered by the BEST Executor) and from the current order book situation.

Each BEST Executor is able to provide the quote parameters for one BEST quote per instrument.

A BEST quote specifies the price improvement relative to the current visible best bid/best ask in the order book if the order size is smaller than or equal to the size at the visible best bid/best ask limits in the order book. If the order size exceeds the size at the visible best bid/best ask limits in the order book, the BEST quote specifies the price improvement relative to the “volume-weighted average” (VWA) in the order book. In this context, the term VWA is defined as the average execution price for the specified order size of the Xetra BEST order if the order would be executed in the order book.² Hidden orders with limits better than the visible bid/ask limit are not considered in the calculation of the VWA.

Assume the order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
100	54.36 (Hidden)	54.38 (Hidden)	100
60	54.35	54.39	170
180	54.32	54.41 (Hidden)	50
140	54.31	54.46	320
540	54.30	54.49	920

For a Xetra BEST buy order entered with a size of 500 the VWA is 54.4312.

The minimum price improvement of a BEST quote is €0.001.

To sum up the main differences between quotes in the order book and BEST quotes, the following table gives an overview of the basic characteristics of both quote types:

² If the size of the incoming order is smaller or equal to the size at the visible best bid/best ask limit, the VWA is equal to the visible best bid/best ask limit. Although the VWA concept includes the best bid/best ask case, in this document both cases are reflected separately in order to improve readability and understanding of the model.

	Order book quotes	BEST quotes
Quote nature	Simultaneous buy/sell orders in the order book	Quote derived from quote parameters and current order book situation
Visibility	Shown aggregated in the order book	Hidden
Quote Specification	Absolute	Relative to the current order book situation

6.2 Parameters of BEST quotes

The following parameters define a BEST quote:

- Relative limit
- Boundary
- Size
- Reserve size

The quote parameters can be entered separately for the bid and the ask side in a given instrument.

(a) Relative limit (mandatory)

The relative limit is set in order to have a moving BEST quote, which depends on the current visible best bid or best ask or the VWA (without consideration of hidden orders with limits better than the best visible bid or ask limit) for the size of the Xetra BEST order in the order book. This relative limit, e. g. of +/- €0.001 always refers to the actual situation in the Xetra order book and minimizes communication load between the member's front end and the Xetra back end. The relative limit for the bid leg of the quote is positive (e.g. + €0.001) and the relative limit for the ask leg of the quote is negative (e.g. -€0.001).

(b) Boundary (optional)

In order to protect BEST Executors from adverse price movements (due to the moving quotes depending on the current order book situation), a boundary can be specified that serves as an upper bound for the bid leg of the quote (a lower bound for the ask leg of the quote). If the potential execution price exceeds the upper bound for the bid leg (incoming Xetra BEST sell order) or falls below the lower bound for the ask leg (incoming Xetra BEST buy order) the order is not executed against the BEST quote and is placed automatically in the order book.

(c) Size (mandatory)

A predefined size (quote size) has to be assigned to the BEST quote by the BEST Executor. This is the maximum executable size for one BEST order, which is subject to execution against the BEST quote at the specified quote limit. Incoming orders will only be executed against the quote size.

(d) Reserve size (mandatory)

In order to be able to specify a quote once for a whole set of Xetra BEST executions, BEST Executors are provided a reserve size parameter. When an own agency order or a preferenced order is executed against the BEST quote, the BEST quote is refilled from the reserve size until the reserve size is smaller than the quote size.

If the reserve size is smaller than the quote size, execution against this side of the quote is not possible anymore for this instrument for this BEST Executor until new quote parameters are entered.

According to the specifications above, the quote parameters of a Xetra BEST quote for one instrument may appear as follows:

Instrument: ABC

BEST Executor: MBRFR

Bid				Ask			
Reserve Size	Size	Boundary	Relative limit	Relative limit	Boundary	Size	Reserve Size
BEST quote							
20,000	600	59.00	+ 0.020	- 0.008	52.00	600	20,000

7 Prefrencing

Xetra BEST supplies a functionality that allows Xetra members (Order Flow Providers) to direct their order flow over the Xetra network to a BEST Executor in order to have the latter provide best execution to the Flow Provider's customers.

The interrelation between Flow Providers and BEST Executors is defined on order level, i.e. the Flow Provider may have contractual agreements with multiple BEST Executors and selects the BEST quotes on the basis of a parameter (see section 8.5). The BEST Executor informs the exchange on the set of Flow Providers that are allowed to execute their agent orders against the BEST quote of the respective BEST Executor.

8 Xetra BEST Orders

Concerning basic order types, execution conditions (IOC, FOK), validity constraints and trading restrictions, order specification of orders eligible for Xetra BEST basically does not differ from current Xetra order specifications (see Xetra Market Model Equities). Therefore, only the additional requirements for orders that are subject to execution within Xetra BEST are listed in this chapter. However, market-to-limit orders, iceberg orders, hidden orders, midpoint orders and stop orders are not eligible for execution within Xetra BEST.

8.1 Order Types

Only market orders and marketable limit orders are subject to Xetra BEST. Market-to-limit orders, iceberg orders, hidden orders and midpoint orders are not eligible for execution within the Xetra BEST service.

All limit orders and market orders that cannot be executed immediately within Xetra BEST are entered directly in the Xetra order book (irrespective of the content of the Executor ID).

8.2 Maximum Order Size

The FWB Management Board decides to what extent a maximum order size shall apply for customer orders. All orders with a volume larger than the maximum order size (regardless whether an Executor ID was specified) are not executable in Xetra BEST and will be entered immediately in the Xetra order book.

Only incoming orders are subject to Xetra BEST. If a limit order residing in the order book is changed in a way that it becomes marketable, it is executed against orders in the order book. Nevertheless, these orders can be changed and/or deleted as usual.

8.3 Modifications of Orders in the Order Book

Only new incoming orders are executable in Xetra BEST. If the limit of an order sitting in the order book is modified in a way that it becomes executable, such order will be executed against orders in the order book. These orders may nonetheless be modified and/or deleted, as usual.

8.4 Handling of Stop Orders

All stop orders are subject to execution in the Xetra stop order book. Stop orders that are triggered from the stop order book automatically appear in the Xetra order book and are not subject to Xetra BEST.

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8.5 Order Routing

Xetra BEST allows addressing orders to the contractual BEST Executor in two ways:

- a) by means of a pre-selected Default BEST Executor
- b) by means of entering the BEST Executor ID as order parameter

The order is checked for potential execution against the BEST Quote of the BEST Executor (defined by a) or b)) through verification if a valid relationship exists between the BEST Executor and the Order Flow Provider. If the result is negative, the order is entered in the Xetra order book.

with respect to a) Default BEST Executor

In Xetra, Order Flow Providers can define on ISIN level those BEST Executors (Default BEST Executors) who should receive their agent orders in preset ISINs for execution. One BEST Executor may be defined per member and ISIN. This presetting may be changed intra-day. Usage of Default BEST Executor for addressing orders can be activated/deactivated on subgroup level. If the Default BEST Executor is activated and only if the order parameter BEST Executor ID is filled with “ ” (blank), all agent orders of the corresponding subgroup are checked at order entry for executability against the Default BEST Executor. If an invalid BEST Executor ID as parameter was entered, the order is not checked for executability against the Default BEST Executor but entered directly in the Xetra order book.

If the order parameter BEST Executor ID is filled, it is this value which always determines the potential execution alternative, regardless of the defined Default BEST Executor.

with respect to b) entry of order parameter BEST Executor ID

In order to determine through the BEST Executor ID whether an order should be executed in Xetra BEST or entered in the Xetra order book, this execution parameter has to be set on order level. A parameter value with the ID of the BEST Executor defines that the order is checked for executability against the BEST Quote of BEST Executor. Specification of an Executor ID is only possible for agent orders.

Only in the event of a (pre-set) BEST Executor ID parameter “ ” (blank) can a potential Default BEST Executor setting take effect.

Priorities under specific alternatives combinations:

The subsequent table summarizes the way Xetra behaves concerning the usage of addressing orders to BEST Executors, respectively which characteristic is used to address agent orders.

Default BEST Executor

		blank	valid value	Invalid value
BEST Executor ID	BLANK	Xetra order book	<i>Default BEST Executor</i>	Xetra order book
	VALID VALUE	BEST Executor ID	BEST Executor ID	BEST Executor ID
	INVALID VALUE	Xetra order book	Xetra order book	Xetra order book

If the selected BEST Executor does not offer a quote that permits Best Execution (according to the definition set out in this document) or if there exists no valid relationship between Order Flow Provider and BEST Executor, the order is automatically entered in the Xetra order book.

9 Trading Day

Executions in Xetra BEST are possible during the defined exchange trading hours between the end of the opening auction and the start of the closing auction/end-of-day auction.

Flow of Trading

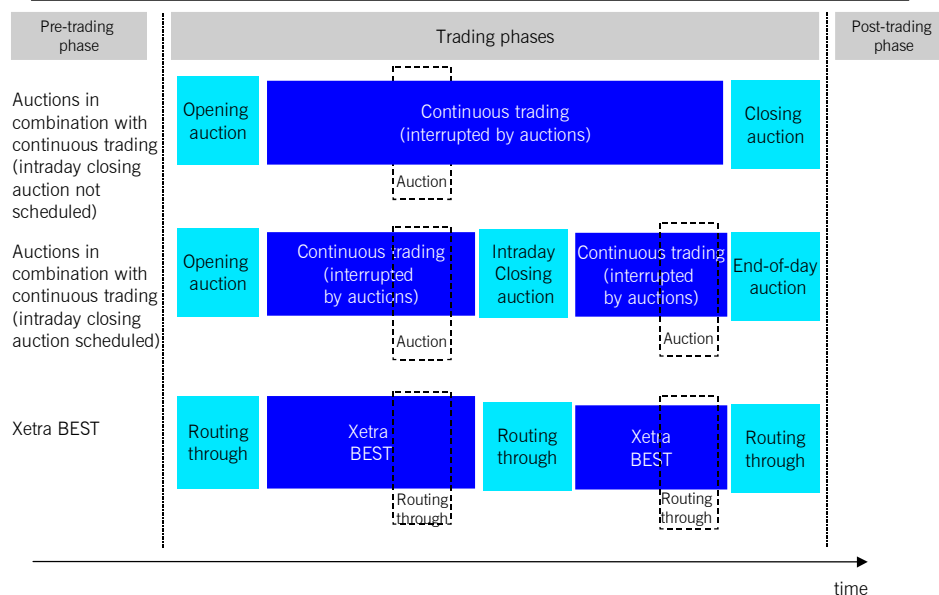


Diagram 1: Flow of trading

10 Auctions

During all auctions, no Xetra BEST executions are possible. Hence, during an auction, incoming orders are immediately entered in the Xetra order book (irrespective of the content of the Executor ID).

In addition, all orders are placed in the order book during volatility interruptions and market order interruptions of auctions.

11 Continuous Trading

Price-/time priority between orders in the Xetra order book and orders executed within the Xetra BEST functionality as well as a consistent handling of all orders residing in the order book are the key elements of the Xetra BEST functionality:

In the event of an execution in Xetra BEST at a price at which orders in the Xetra order book are entitled to execution, these orders will be executed first with their limits against the BEST Executor.

All orders which are not potentially executable will be entered in the order book automatically and immediately.

11.1 Examples for Execution

Depending on the size of the incoming order in comparison to the size of the BEST quote, three different situations may occur:

	Execution	Price
1) (Order Size \leq Size at visible best bid/best ask) and (Order Size \leq Size BEST quote)	Against BEST quote, if no invisible limits of hidden orders exist which are better than the best visible bid/ask and at the same time better than or equal to the potential execution price in Xetra BEST	At least €0.001 higher than visible Xetra best bid for BEST sell orders and €0.001 lower than the visible Xetra best ask for BEST buy orders
2) Size at visible best bid/best ask < Order Size \leq Size BEST quote	Against BEST quote, if no invisible limits of hidden orders exist which are better than the best visible bid/ask and at the same time better than or equal to the potential execution price in Xetra BEST; orders in the order book with limits better than or equal to the potential Xetra BEST execution price have to be executed in advance	At least €0.001 higher/lower than the order book VWA (rounded to 3 decimal places, without consideration of hidden orders with limits better than the best visible bid/ask limit) on the buy/sell side for BEST sell/buy orders
3) (Order Size > Size BEST quote) or	Exclusively order book	VWA (including all hidden orders) of the order book resulting from executions against the current order book

For the following examples it is assumed that BEST Executor MBRFR has submitted these quote parameters to specify his BEST quote:

Bid				Ask			
Reserve Size	Size	Boundary	Relative limit	Relative limit	Boundary	Size	Reserve Size
BEST quote							
20,000	600	59.00	+ 0.020	- 0.008	52.00	600	20,000

1a) (Order Size ≤ Size at visible best bid/best ask) and (Order Size ≤ Size BEST quote) and there are no invisible limits of hidden orders which are better than the visible best bid/ask limit and at the same time better than or equal to the potential execution price in Xetra BEST

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
60	54.35	54.39	170
180	54.32	54.41 (Hidden)	50
140	54.31	54.46	320
540	54.30	54.49	920

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 50) is submitted to Xetra.

The BEST order is executed against the BEST quote of the BEST Executor at 54.382 (current visible best ask limit – 0.008), since there are no invisible limits of hidden orders which are better than the visible best bid limit and at the same time better than or equal to the potential execution price in Xetra BEST. The BEST quote size of the BEST Executor is set back to 600. His reserve size is decreased by 50 to 19.950. The order book remains unchanged.

The following table shows the executions which take place:

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
1				54.382	50	S	54.382	50	B

1b) (Order Size \leq Size at visible best bid/best ask) and (Order Size \leq Size BEST quote) and there are invisible limits of hidden orders which are better than the visible best bid/ask limit and at the same time better than or equal to the potential execution price in Xetra BEST

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
100	54.36 (Hidden)	54.38 (Hidden)	100
60	54.35	54.39	170
180	54.32	54.41 (Hidden)	50
140	54.31	54.46	320
540	54.30	54.49	920

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 50) is submitted to Xetra.

The potential Xetra BEST execution price is 54.382 (current best visible bid limit – 0.008). It is thus not better than the limit of the best hidden order on the ask side (54.38). No execution against the BEST Executor takes place. The BEST order is executed against the order book.

The following table shows the executions which take place:

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
1	54.38	50	S				54.38	50	B

2a) Size at best bid/best ask < Order Size ≤ Size BEST quote and there are no invisible limits of hidden orders which are better than the best visible bid/ask limit and at the same time better than or equal to the potential execution price in Xetra BEST

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
60	54.35	54.39	170
180	54.32	54.41 (Hidden)	50
140	54.31	54.46	320
540	54.30	54.49	920

A BEST order for BEST Executor MBRFR (marketable customer buy order; size: 500) is submitted to Xetra. The VWA of the order book for a size of 500 is 54.4312.

The BEST order has to be executed against the BEST quote of the BEST Executor at 54.423 (current VWA rounded to 3 decimal places – 0.008).

In order to achieve order book consistency, it is necessary that orders with a limit better than or equal to the execution price of Xetra BEST have to be executed in advance. Therefore, before the Xetra BEST execution takes place, the ask order with a size of 170 and a limit of 54.39 in the order book and the ask order with a size of 50 and a limit of 54.41 in the order book are executed against the BEST Executor³. Afterwards, the customer order is executed as a whole (size: 500) at 54.423 against the BEST quote. The BEST quote of the BEST Executor is set back to 600. His reserve size is decreased by 500 to 19,500.

The following table shows the executions which take place:

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
①	54.39	170	S	54.39	170	B			
②	54.41	50	S	54.41	50	B			
③				54.423	500	S	54.423	500	B

³ Therefore, (an) order(s) (member: MBRFR) which execute the orders in the order book are automatically generated by the system on behalf of the BEST Executor.

2b) Size at best bid/best ask < Order Size ≤ Size BEST quote and there are invisible limits of hidden orders which are better than the best visible bid/ask limit and at the same time better than or equal to the potential execution price in Xetra BEST

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
100	54.36 (Hidden)	54.38 (Hidden)	100
60	54.35	54.39	170
180	54.32	54.41 (Hidden)	50
140	54.31	54.46	320
540	54.30	54.49	920

A BEST order for BEST Executor MBRFR (marketable customer buy order; size: 500) is submitted to Xetra. The VWA of the order book (without consideration of the hidden order with a limit better than the visible best bid limit) for a size of 500 is 54.4312.

The potential execution price in Xetra BEST is 54.382 (current VWA rounded to 3 decimal places (without consideration of the hidden order with a limit better than the visible best bid limit) – 0.008). It is thus not better than the invisible limit of the hidden order on the bid side (54.38) which at the same time is better than the best visible ask limit. No execution against the BEST Executor takes place. The BEST order is executed against the order book.

The following table shows the executions which take place:

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
❶	54.38	100	S				54.38	100	B
❷	54.39	170	S				54.39	170	B
❸	54.41	50	S				54.41	50	B
❹	54.46	180	S				54.46	180	B

3) (Order Size > Size BEST quote) or (Order Size > maximum order size)

A BEST order for BEST Executor MBRFR (marketable retail buy order; size: 900) enters the order book.

The BEST order is executed against the order book. This may include the order book quote of the Xetra BEST Executor.

11.2 Handling of Volatility Interruptions during Continuous Trading

11.2.1 Triggering of Volatility Interruptions

In order to prevent adverse price movements within the Xetra BEST execution facility and to provide a consistent handling of Xetra and Xetra BEST orders, potential executions within Xetra BEST are also checked against the dynamic/static price ranges. To ensure price continuity, continuous trading is interrupted by a volatility interruption whenever the potential execution price of a Xetra BEST order lies outside the dynamic and/or static price range around a reference price (see Xetra Market Model Equities).

Before the order is executed in Xetra BEST, it is checked whether the potential Xetra BEST execution price would trigger a volatility interruption.

Assume that BEST Executor MBRFR has submitted these quote parameters to specify his BEST quote:

		Bid		Ask			
Reserve Size	Size	Boundary	Relative limit	Relative limit	Boundary	Size	Reserve Size
BEST quote							
20,000	1,000	59.00	+ 0.020	- 0.008	52.00	1,000	20,000

1) Triggering of a Volatility Interruption (example 1)

Assume the current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
50	52.35	54.41	200
100	52.32	54.45	300
220	52.31	56.19	500
1230	52.30	57.00	3,000

Trigger price for volatility interruption: 54.29

The last execution price in the order book is assumed to be at 52.35. In this example, the trigger price for the volatility interruption (based on the reference price of 52.35) is assumed to be 54.29.

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 100) is submitted to Xetra.

The potential execution price of the BEST order is 54.402 (current best ask – 0.008). As the potential execution price of 54.402 lies outside the predefined volatility range, the order enters the order book and a volatility interruption is triggered as the next potential execution price within the order book of 54.41 lies outside the volatility range.

2) Triggering of a Volatility Interruption (example 2)

Assume the current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
60	52.35	54.41	200
180	52.32	54.45	300
140	52.31	56.19	500
540	52.30	57.00	3,000

Trigger price for volatility
interruption: 55.19

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 1,000) is submitted to Xetra.

In this example, the trigger price for the volatility interruption (based on the reference price of 54.45) is assumed to be 55.19.

The VWA of the order book for a size of 1,000 is 55.312.

The potential execution price of the BEST order is 55.304 (current VWA – 0.008).

As the potential execution price of 55.304 lies outside the predefined volatility range, the order is automatically entered in the order book and is executed against the orders in the book.

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
①	54.41	200	S				54.41	200	B
②	54.45	300	S				54.45	300	B

After the second execution, the volatility interruption is triggered as the next potential execution price within the order book of 56.19 lies outside the volatility range.

11.2.2 Xetra BEST during Volatility Interruptions

All incoming orders are subject to execution in the Xetra order book during volatility interruptions and extended volatility interruptions in continuous trading. No Xetra BEST executions are possible.

11.3 Special Order Book Situations

11.3.1 Iceberg Orders

If iceberg orders are residing in the order book, the Xetra BEST matcher also takes iceberg orders into account for the determination of the execution price.

Assume that BEST Executor MBRFR has submitted these quote parameters to specify his BEST quote:

Bid				Ask			
Reserve Size	Size	Boundary	Relative Limit	Relative Limit	Boundary	Size	Reserve Size
BEST quote							
20,000	1,000	59.00	+ 0.020	- 0.008	52.00	1,000	20,000

1) Iceberg at the First Limit in the Order Book

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
600	54.35	54.41	200
200	54.34	54.45	300
Iceberg		54.41	5,000

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 1,000) is submitted to Xetra.

The VWA of the order book for a size of 1,000 is 54.41 (including the overall volume of the iceberg).

The BEST order is executed as a whole (size: 1.000) against the BEST quote of the BEST Executor at 54.402 (current VWA – 0.008). The BEST quote of the BEST Executor is set back to 1,000. His reserve size is decreased by 1,000 to 19,000. The order book remains unchanged.

The following table shows the executions which take place:

Execution	Order book			BEST Executor			Investor		
	Price	Volume	B/S	Price	Volume	B/S	Price	Volume	B/S
①				54.402	1,000	S	54.402	1,000	B

2) Iceberg at Deeper Limits in the Order Book

The current Xetra order book looks as follows:

Bid		Ask	
Volume	Limit	Limit	Volume
600	54.35	54.41	200
200	54.34	54.45	300
200	54.34	54.46	1,500
Iceberg		54.45	5,000

A BEST order for BEST Executor MBRFR (e.g. marketable customer buy order; size: 1,000) is submitted to Xetra.

The VWA of the order book for a size of 1,000 is 54.442 (including the overall volume of the iceberg).

The BEST order has to be executed against the BEST quote of the BEST Executor at 54.434 (current VWA – 0.008).

In order to achieve order book consistency, it is necessary, that orders with a limit better than or equal to the Xetra BEST execution price have to be executed in advance. Therefore, before the Xetra BEST execution takes place, the ask order with a size of 200 and a limit of 54.41 is executed against the BEST Executor⁴.

Afterwards, the incoming customer order is executed as a whole (size: 1,000) at 54.434 against the BEST quote. The BEST quote of the BEST Executor is set back to 1.000. His reserve size is reduced by 1,000 to 19,000.

Execution	Order book			BEST Executor	Volume	B/S	Investor		
	Price	Volume	B/S	Price			Price	Volume	B/S
①	54.41	200	S	54.41	200	B			
②				54.434	1.000	S	54.434	1,000	B

⁴ Therefore, (an) order(s) (member: MBRFR) which execute the orders in the order book are automatically generated by the system on behalf of the BEST Executor.

11.3.2 Crossed/Locked Situations

If – due to a tight spread in the order book – the potential Xetra BEST price equals or exceeds the best limit (including limits of hidden orders) on the other side of the order book, the relative limit is temporarily not valid as quotes do not execute orders residing in the order book. In this situation, the incoming Xetra BEST orders are routed into the order book until the relative limit is within the spread again.

11.3.3 Empty Order Book

If there are only market orders, hidden orders or no orders on the other side of the order book executions against the BEST quote are not possible and the orders are automatically entered in the Xetra order book.

12 Order Selection Process

To sum up the explanations in chapters 6 to 11, the following diagram 2 shows the selection process for orders for Xetra BEST or the Xetra order book.

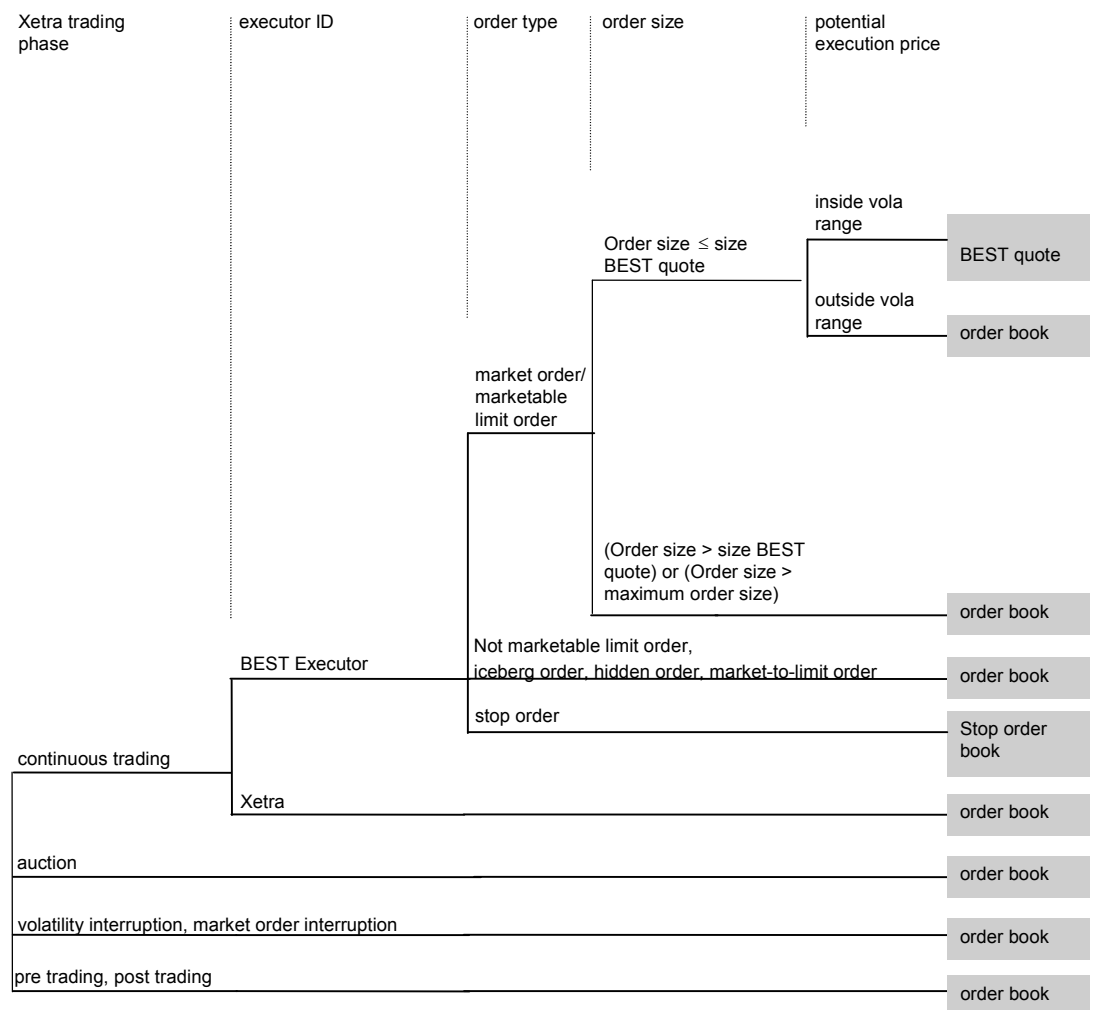


Diagram 2: Order selection process

13 Order Handling in Case of Events affecting Prices

No Xetra BEST executions are possible during trading halts and suspensions.

14 Reporting and Publication

Xetra BEST transactions are reported and published, e.g. via the ticker and via CEF. Xetra BEST trades are marked in order to indicate that the transaction did take place within Xetra BEST.

The traded volumes within Xetra BEST are shown separately from the order book volumes.

15 Glossary

Best execution	Execution better than an execution based on the current Xetra order book
BEST Executor	Market participant which provides → best execution to own or other member's (→ Flow Provider) customers
BEST Order	Retail (Agent) Order below BEST maximum order size submitted for execution within → Xetra BEST
BEST quote	Private Quotes that are provided on the basis of quote parameters by the → BEST Executor in order to provide a price improvement relative to an execution within the order book. These quotes are not shown in the order book
Executor ID	Parameter of → BEST order which determines the point of execution (parameter values: ID of → BEST Executor; " ")
Flow Provider	Market participant which routes retail order flow to another Xetra member (→ BEST Executor) in order to achieve → best execution provided by the → BEST quotes of the other Xetra member
Order Book Consistency	Requirement to execute limits in the order book with a price better than or equal to the Xetra BEST execution price before the → Xetra BEST execution is carried out (guarantee of price/time priority)
Preferencing	Routing of customer order flow from → Flow Providers to specific other market participants acting as → BEST Executors
VWA (Volume Weighted Average)	Volume-weighted average execution price for the specified order size of the Xetra → BEST order if the order would be executed in the order book
Xetra BEST	Xetra facility that guarantees Best execution