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Implementation Rules relating to the Exchange Rules of the Stuttgart Stock Exchange

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Chapter 1: General Provisions

Part 1: Scope of Application; Trading

Section 1 Scope of Application

In order to substantiate the provisions of the Exchange Rules, the Board of Management (*Geschäftsführung*) of the Stuttgart Stock Exchange (*Baden-Württembergische Wertpapierbörse* – the “Exchange”) has issued these Implementation Rules pursuant to section 8 (4) of the Exchange Rules. In case of any conflicts, the provisions of the Exchange Rules shall prevail over these Implementation Rules insofar as these Implementation Rules contradict the Exchange Rules.

Section 2 Market Model

- (1) The Exchange trades derivative securities, domestic and foreign equities, profit-participation certificates, bonds as well as investment fund units and Exchange-Traded Products (ETPs).
- (2) The securities are traded in consecutive auctions, or in one daily auction, with a minimum of one price determination on each Exchange trading day – unless the orderly price determination cannot be guaranteed, or where no Reference Market quotes or Market-Maker Price Information are available.
- (3) The Exchange's Limit Control System monitors whether orders are potentially executable, and triggers the price discovery process once that is the case. This process follows the principle of highest volume transacted. Prices are determined by the Exchange's electronic trading system.
- (4) Each security is covered by a QLP.
- (5) Prices are determined in accordance with the 'best-price' principle: in the ETF Best-X trading segment prices are not determined outside the relevant Market-Maker Price Information; prices for domestic and foreign equities are not determined outside the Reference Market quote. Prices for investment fund units and ETPs (outside the ETF Best-X segment) are not determined outside the Reference Market quote, provided that the Board of Management has admitted Reference Markets.

Section 3 Auction

- (1) Incoming or existing orders are continuously monitored by taking into consideration the QLP A information provided by the QLP. As soon as at least one order is potentially executable, the QLP is notified.
- (2) The process of identifying a potentially executable situation is triggered by the following events:

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1. the start of trading hours for the respective security; or
 2. a new order is received, an order is modified or cancelled; or
 3. new QLP A information is received, resulting in orders already contained in the system now being apparently executable.
- (3) If securities are traded, as per the Board of Management's decision, in consecutive auctions during specific trading hours, a period shall be defined (beginning and end), in which the process of identifying executable orders is activated. Existing orders may only be executed within these specific trading hours.
- (4) Where the Board of Management decides that a security shall only be traded in one single auction per day, the Board of Management shall also determine the starting time of such auction. From that time, a single price determination process shall be commenced and price determination, if applicable without turnover, shall be carried out. The details of this auction are determined by reference to the special provisions governing trading in specific types of security.
- (5) The price determination process commences with the provision of QLP S information. The electronic trading system will not determine any exchange price outside the QLP S information provided by the QLP.
- (6) A single price discovery algorithm is used. Price levels that have the largest turnover within the given framework (QLP S information) must be identified. When searching for the largest possible turnover, all sales at ask price or lower limited sales, and all purchases at bid price or higher limited purchases, shall be regarded as being fully executable. Where one or more orders with the order attribute 'fill-or-kill' need to be taken into account for price determination, orders without attribute shall have priority over orders with the 'fill-or-kill' attribute. If an order with the order attribute 'fill-or-kill' cannot be executed in full, it will no longer be taken into account for price determination. If there are several possible price levels, the price level with the lowest surplus must be identified. Where this results in more than one price level having the highest turnover and the lowest surplus, a further review shall take place:
1. If there is no surplus, the auction price closest to the last determined price shall be identified.
 2. The auction price is stipulated according to the highest price limit identified if the surplus for all limits identified is on the buy side (surplus of demand).
 3. The auction price is stipulated according to the lowest price limit identified if the surplus for all limits identified is on the sell side (surplus of supply).
 4. If price limits with a surplus on both the buying and selling sides are identified, the price limit closest to the price last determined shall be identified. If both price limits are equidistant from the last price determined, the price limit having the demand surplus shall be selected.
- (7) Once the price has been successfully established, final price determination will be triggered by the system. The order book in the electronic trading system is blocked ('frozen') during price determination: the electronic order book remains blocked for new or-

der placements, as well as for order modifications or deletions during this phase. Order placements, modifications or -deletions, which are submitted to the electronic trading system during an order book freeze, are entered into the order book once the freeze has been lifted, in line with their entry sequence. The price can only be freshly determined once the executed orders have been fully updated and all provisional order book changes have been processed.

- (8) In the absence of a potentially executable situation (as defined in paragraph 2), the QLP may trigger a price determination without turnover by submitting a QLP S information.

Section 4 Partial Execution

- (1) Despite liquidity having been made available by the QLP using its own or third-party liquidity, it is possible that some orders cannot be executed in full by the electronic trading system. The assignment by the electronic trading system to assignable orders is carried out on a percentage basis. Both the executed and the remaining part of the order must correspond to a tradable lot.
- (2) Partial executions shall only be carried out to the extent that these are commercially feasible. If this would require a diversion from the percentage allocation pursuant to paragraph 1 above, such allocation requires a prior approval by the Trading Surveillance Office.
- (3) In the event of an order book situation that does not permit a commercially feasible partial execution, nor a full execution, the QLP may initiate – with the prior approval of the Trading Surveillance Office – a price determination without applying the auction principle. In this scenario, the QLP is authorised to collect very small orders for subsequent execution. Orders are executed based on the sequence of entry into the order book. The best-price principle shall remain unaffected.
- (4) The corresponding notation shall be published.
- (5) Partial executions are excluded for Fill-or-Kill orders.

Part 2: QLP

Section 5 Exceptions to the Duties of the QLP

- (1) Exceptions to the QLP's duties exist only where compliance cannot reasonably be expected, i.e. specifically in the case of:
1. special circumstances with regard to the technology used which make an orderly continuation of trading impossible;
 2. a special market situation characterised by one of the following:

- a) extraordinary market movements in the relevant markets to be taken into account;
or
 - b) serious disruptions of the economic or political situation;
 3. to the extent that serious problems in trade delivery are to be expected;
 4. if the data relevant to price discovery is unavailable (no data available from the Market-Maker, or from relevant Reference Markets), or to the extent that the related bid or ask prices are not firm enough to trade upon.
- (2) The QLP is obliged to notify the Board of Management, without undue delay, of any interruption as per nos. 1 to 4 above that exceeds 15 minutes and results in the QLP not being able to fulfil its duties. The QLP is obliged to give notice as soon as it can resume the permanent generation of QLP A information. Such notices must clearly identify the securities affected. An interruption will be published for a minimum period of five Exchange trading days. The Board of Management may announce any such interruption on the Exchange's website (www.boerse-stuttgart.de).

Chapter 2: Special Provisions Governing Trading in Specific Types of Security

Part 1: Trading in Foreign Equities

Section 6 Determination and Consideration of Foreign Reference Markets

Either together with the QLP's application for determination of a foreign Reference Market, pursuant to section 48 (5) of the Exchange Rules, or upon request of the Board of Management, the QLP shall propose a maximum deviation from quotes to the Board of Management, which the Board of Management may take into account in its decision. Such proposal shall be substantiated, based on the following criteria:

1. risk of exchange rate fluctuations;
2. different trading and settlement procedures;
3. different transaction costs;
4. risks of default; and
5. other risks and costs involved, particularly for the QLP, with regard to the replacement and delivery of foreign equities.

Section 7 Exceptions from the Consideration of Reference Markets

- (1) Reference Markets do not need to be taken into consideration for the purposes of generating QLP A information or price determination if and when, as a result of the special circumstances in the Reference Market, taking such Reference Market into consideration is, in the individual case, either not possible at all or only subject to high risks, particularly in the event of:
1. prohibition of trading in the Reference Market due to government intervention; or
 2. prohibition of short selling in the Reference Market.

- (2) The Board of Management shall be informed, without undue delay, of the start and end of periods during which the inclusion of a Reference Market is not required for quoting in accordance with the above provisions.

Part 2: Trading Bonds

Sub-part 1: General Provisions for Trading Bonds

Section 8 Generation of QLP S Information, and Plausibility Check by the QLP

Where the QLP has been notified of a potentially executable situation, the QLP is obliged to provide QLP S information. If the potentially executable situation involves a price deviation – compared to the preceding price determination –

with regard to bonds quoted in percent

1. exceeding five percentage points (for bonds with a last determined price above 70%); or
2. exceeding four percentage points (for bonds with a last determined price above 40%, and not exceeding 70%); or
3. exceeding three percentage points (for bonds with a last determined price not exceeding 40%);

the QLP must seek prior approval from the Trading Surveillance Office. Price determination shall only take place after a corresponding QLP A information has been published for an appropriate period of time.

With regard to bonds quoted per unit the percentage values are applicable to the price of the bonds quoted per unit as the Euro or foreign currency amount per unit.

Sub-part 2: Special Provisions for the BOND-X Trading Segment

Section 9 Generation of QLP A Information by the QLP

- (1) The QLP is required to permanently provide QLP A information (i) for German Government Bonds (*Bundesanleihen*), up to a maximum nominal value of EUR 500,000 per order (and in any case, up to an aggregate nominal order volume (total nominal order book volume) of EUR 1.0 million; and (ii) for European sovereign government bonds, Jumbo bonds issued by German Federal states, agency issues, Jumbo Pfandbrief issues, corporate bonds and other bonds, up to a maximum nominal value of EUR 100,000 per order (and in any case, up to an aggregate nominal order volume (total nominal order book volume) of EUR 100,000).

- (2) With regard to the QLP A information provided by the QLP, the difference between bid and offer price (spread) shall not exceed the ranges specified below. The spread is determined on the basis of ticks (1 tick equals 1 cent per EUR 100 nominal).
 1. For German Government Bonds, the maximum spread shall be 15 ticks.
 2. For European government bonds, Jumbo bonds issued by German Federal states, agency issues, Jumbo Pfandbrief issues, corporate bonds and other bonds, the maximum spread shall be 75 ticks.
- (3) The QLP shall be entitled to adjust the QLP A information to be submitted in the event of repeated orders received within a short period of time, having re-examined the market situation (especially on Reference Markets).
- (4) Over and above the provisions of section 10, the QLP may use additional liquidity providers.

Part 3: Trading Investment Fund Units and ETPs

Sub-part 1: General Provisions for Trading Investment Fund Units and ETPs

Section 10 Restrictions Imposed by the Investment Company on the Issuance and Redemption of Fund Units

- (1) Where a fund management company suspends the issuance or redemption of fund units, the QLP shall notify the Board of Management without undue delay. In this case, the Board of Management may suspend trading in the relevant fund.
- (2) Where a fund management company has restricted the issuance of fund units, all trades effected by the QLP as open transactions subject to designation of the counterparty (*Aufgabegeschäfte*) during the period from the last opportunity for issuance of the fund units by the fund management company and the time of restriction of issuance or the time when the restriction of issuance in the form of such transaction by the QLP was announced, whichever occurs later, may be cancelled by the Board of Management upon the QLP's application, unless the relevant trades have already been settled.
- (3) Where a fund management company has restricted the redemption of fund units, all trades effected during the period from the last opportunity for redemption of the fund units by the fund management company and the close of trading on the trading day, on which the fund management company announced the restriction of redemption, or the actual suspension of trading in the relevant fund unit, whichever occurs later, may be cancelled by the Board of Management, unless the settlement period (as defined in the Conditions for Trading) has already elapsed. The trading participants concerned shall be notified thereof.
- (4) Where the Board of Management has suspended trading in a fund, trading shall only resume after a reasonable waiting period.

Section 11 Exceptions to the Duties of the QLP

Upon application, the Board of Management may relieve a QLP from its duties pursuant to section 6 during the Early and/or Late Trading Phase. Such waiver will be granted for a maximum period of one year, and may be repeated.

Sub-part 2: Special Provisions for the ETF Best-X Trading Segment**Section 12 Market-Maker Duties**

(1) During the trading hours of the Exchange-Traded Products (ETFs) for which the Market-Maker provides quotes, the Market-Maker shall provide such quotes without interruption. Upon the QLP's request, the Market-Maker shall provide the QLP with a binding bid and ask price (including volume) to be forwarded by the QLP (following completed communication between the Market-Maker and the QLP) as an order of the Market-Maker in connection with the QLP S information to the electronic trading system of the Exchange. When submitting a quote, the maximum spread that applies to the security and the minimum trading volume shall be complied with.

(2) Upon application, the Board of Management allocates each ETF admitted to the ETF Best-X trading segment to one of the following categories:

Spread matrix	Maximum spread	Minimum trading volume		
		€100,000	€50,000	€25,000
Category 1	0.25%	1A	1B	1C
Category 2	0.50%	2A	2B	2C
Category 3	1.00%	3A	3B	3C
Category 4	2.00%	4A	4B	4C

(3) The obligations (as set out in paragraphs 1 and 2 above) to provide continuous quotations, and to observe maximum spreads and minimum trading volumes, shall not apply during the Early and Late Trading phases of the securities.

(4) The Board of Management and the QLP must be able to contact the Market-Maker during the trading hours of the securities for which the Market-Maker provides quotes. The Market-Maker shall ensure that all necessary material and human resources are available in order to perform quotations.

(5) For the execution of transactions pursuant to a quote, each Market-Maker must use a separate ID number, which is used solely for the settlement of transactions pursuant to a quote for derivative securities which are traded in the ETF Best-X trading segment upon application of an applicant for the ETF-Best-X trading segment.

Section 13 Exceptions to the Duties of the Market-Maker

- (1) Exceptions to the Market-Maker's quoting obligation exist only where the quote for a bid and ask price cannot reasonably be expected, i.e. specifically in the case of:
 1. special circumstances with regard to the technology used by the Market-Maker;
 2. a special market situation characterised by one of the following:
 - a) extraordinary market movements of the underlying index mapped, owing to special circumstances in its home market; or
 - b) serious disruptions of the economic or political situation; or
 - c) the suspension of components of the index mapped; or
 - d) restriction or suspension of the issuance and/or redemption of unit certificates by the fund management company.
- (2) In the cases outlined above, the Market-Maker shall be obliged to submit a quote showing a value of zero on both the bid and ask sides.
- (3) Upon request by the Board of Management or the Trading Surveillance Office, the Market-Maker shall communicate the reason for a quotation interruption without delay.

Section 14 Generation of QLP S Information, and Plausibility Check by the QLP

Over and above the requirements pursuant to section 9, the QLP shall check for compliance with maximum spreads (in accordance with these Implementation Rules), as well as with the Market-Maker's published voluntary obligations.

Chapter 3: Final Provisions**Section 15 Ability to Contact Trading Participants**

- (1) Other trading participants must ensure that they can be contacted regarding orders or mistrades.
- (2) Trading participants shall be liable for any damages incurred by themselves or third parties as a result of their non-availability for being contacted.

Section 16 Effective Date

These Implementation Rules shall come into force by way of electronic publication on the Exchange's website.