

SDX Trading AG

Preparatory Examination Documentation for Traders

SDX-TRD-EXAM
Version 1.1, 01.07.2022
C1 Public

SDX Trading AG
Hardturmstrasse 201
CH-8005 Zurich



© SDX 07.2022

Identification

[Do not delete this distance marker]

Domain:	SDX Trading AG
Subject:	Preparatory Examination Documentation for Traders
Abstract:	[Abstract]
Date:	01.07.2022
Version:	1.1
Doc Reference:	SDX-TRD-EXAM
Classification:	C1 Public
Intended Audience:	<Intended Audience>
Distribution:	<Distribution>
Keywords:	Trader Examination; Preparatory Examination Documentation for Traders
Filename:	Preparatory Examination Documentation for Traders
Author(s):	Philippe Kayasseh
Reviewer(s):	Jessica Doré, Lara Bernasconi
Approval:	Guido Krüdenscheidt

Template Version 2021-05-26

Table of Contents

1	Introduction	5
1.1	Terms and Abbreviations	5
1.2	Rules and Regulations	5
1.3	References	6
2	Introduction	7
2.1	Structure of the Trader Examination	7
2.1.1	Question Types and Evaluation	7
3	SDX	8
4	Participants	8
4.1	Admission Requirements	8
4.2	Participants Admission	8
4.2.1	Possible Categories of Participants	8
4.2.2	Participation in a Settlement Organisation	9
4.2.3	Collateral Deposit	9
4.2.4	Connection to the SDX Exchange System	9
4.3	Participants' Rights and Obligations	9
4.3.1	Continued Compliance with Admission Requirements	9
4.3.2	Compliance with Statutory and Regulatory Provisions	9
4.3.3	Appropriate Organisation and Registration Obligations	9
4.3.4	Reporting Obligation	10
4.3.5	Duty to Provide Information	10
4.3.6	Use of the Exchange System	11
4.4	Liquidity Providers	11
4.5	Liability	11
4.5.1	Liability of SDX Exchange and/or the Regulatory Bodies	11
4.5.2	Liability of the Participant	12
4.6	Suspension and Termination of Participation	12
4.6.1	Suspension of Participation	12
4.6.2	Termination of Participation	12
4.7	Possibilities of Appeal	13
4.8	Market Conduct	13
5	Technical Connectivity	13
5.1	Definitions and Abbreviations	14
5.2	Direct Connectivity for Trading Participants	14
5.3	Interfaces	14
5.3.1	Trading Interfaces	14
5.3.2	Market/Reference Data Interfaces	15
6	Trading	15
6.1	Auction Model	15
6.2	Trading Day and Trading Periods	16

6.2.1	Pre-Opening	17
6.2.2	Opening and Opening Auction	17
6.2.3	Open Order Book	17
6.2.4	Close of Trading with Closing Auction.....	17
6.2.5	Close of Trading without Closing Auction	18
6.2.6	Post-Trading.....	18
6.3	Settlement Day	18
6.4	Trading Hours	18
6.5	Trading Segments	19
6.5.1	Overview Equity and Bond Market.....	19
6.6	Order Placement: Orders and Quotes	21
6.6.1	Order Book	21
6.6.2	Orders and Quotes	21
6.6.3	Order	21
6.6.4	Quote.....	22
6.7	Price-Time Priority	23
6.8	Pre-Trade Controls	23
6.9	Open Order Book	24
6.10	Auction and Principle of Highest Executable Volume	25
6.11	Examples Matching Rules.....	26
6.12	Algorithmic Trading	31
6.13	Reference Price Adjustment.....	31
7	General Provisions	32
7.1	Market Control.....	32
7.2	Trading Surveillance	32
7.3	Pre-trade Transparency	32
7.4	Post-trade Transparency.....	32
7.5	Special Situations	32
7.5.1	Extraordinary Situations	33
7.5.2	Emergency Situations	33
7.6	Deletion of Orders and Cancellation of Trades	33
8	Reporting Duty	34
8.1	Purpose and Scope	34
8.2	Acceptance of Messages	34
8.3	Trade Reports	35
8.3.1	Content.....	35
8.3.2	Reporting Deadlines	35
8.3.3	Cancellation	35
8.4	Transaction Reports	36
8.4.1	Content.....	36
8.4.2	Transaction Report Format.....	36
8.4.3	Reporting Deadline.....	37
8.4.4	Cancellation	37
9	Settlement.....	37
9.1	Atomic Trading and Settlement.....	37

9.2 Trades.....	37
9.2.1 Contracting Parties.....	37
9.2.2 Content of Contract.....	38
9.2.3 Legal Warranty.....	39
10 Violations and Sanctions.....	39
10.1 Violations.....	39
10.2 Sanctions.....	39

1 Introduction

1.1 Terms and Abbreviations

Term/Abbreviation	Explanation
ADT	Average Daily Turnover
ASP	Application Service Provider
CET	Central European Time
CLOB	Central Limit Order Book
CO	Federal Act on the Amendment of the Swiss Civil Code (Part Five: Swiss Code of Obligations)
DLT	Distributed Ledger Technology
EU	European Union
FinIA	Federal Act on Financial Institutions
FinIO	Ordinance on Financial Institutions
FINMA	Swiss Financial Market Supervisory Authority
FINMASA	Federal Act on Financial Market Supervision
FinSA	Federal Act on Financial Services
FinMIA	Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading
FinMIO	Ordinance on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading
FinMIO-FINMA	Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading
FTI	FIX Trading Interface
IMI	ITCH Market Data Interface
ISIN	International Securities Identification Number
MiFIDII	Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU
MiFIR	Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No. 648/2012
OTI	OUCH Trading Interface
QTI	Quote Trading Interface
RDI	Reference Data Interface
RTS 22	Regulatory technical standards under MiFIR _3rd subpara. of Article 26 (9): Reporting of transactions to competent authorities
SDX CSD	SIX Digital Exchange AG
SDX Exchange	SDX Trading AG
SIX MDDX	SIX MDDX Multi-Dimensional Data fluX™ Interface
SNB	Swiss National Bank
TOP	Theoretical Opening Price

1.2 Rules and Regulations

Document Title	Applicable Reference
FINMA Circular 2013/8 "Market Conduct Rules"	FINMA Circular 2013/8

Document Title	Applicable Reference
FINMA Circular 2018/2 "Duty to report securities transactions"	FINMA Circular 2018/2
Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading	Financial Market Infrastructure Act (FinMIA)
Federal Act on Financial Market Supervision	Financial Market Supervision Act (FINMASA)
Federal Act on Financial Services	Financial Services Act (FinSA)
Federal Act on the Amendment of the Swiss Civil Code (Part Five: Swiss Code of Obligations)	Swiss Code of Obligations (CO)
Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU	MiFIDII
Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No. 648/2012	MiFIR
Ordinance on Financial Institutions	Financial Institutions Ordinance (FinIO)
Ordinance on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading	Financial Market Infrastructure Ordinance (FinMIO)
Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading	FINMA Financial Market Infrastructure Ordinance (FinMIO-FINMA)
SDX Trading AG Directives	Directive 1 Admission of Participants Directive 2 Technical Connectivity Directive 3 Trading Directive 4 Market Control Directive 5 Market Information
SDX Trading AG List of Charges	List of Charges under the Listing and Trading Rules
SDX Trading AG Rules	Reporting Office Rules Trading Rules
SDX Trading AG Directives, List of Charges, Rules etc.	Trading and Listing Rules · SIX Digital Exchange (sdx.com)

1.3 References

Document Title	Applicable Reference
SDX Website	www.sdx.com
Trader Registration and Modification Form	Trader Registration and Modification Form

2 Introduction

The SDX Trading AG's (SDX Exchange) trader examination sets high standards in respect of quality and customer orientation. It ensures that traders possess the requisite knowledge for trading in securities, thereby ensuring a smooth trading process. The examination is primarily available to traders of participants. The Client Support Team coordinates and oversees the examination program. Traders benefit from the real-world professional knowledge of experts from other departments of SDX Exchange. **The examination is designed for all Exchange traders, holding the SIX Swiss Exchange licence, who wish to obtain this professional qualification.** Comprehensive preparatory materials are available so that participants can prepare for the examination through self-study.

The web-based testing application enables traders to sit for the modular trader examination at the premises of SDX participants. The test can be taken at any time, and participants can choose to hold examinations for individuals or groups. Once the examination is finished, the trader can immediately view and print out the result.

The examination is conducted under the supervision of the responsible Compliance Officer of the SDX participant.

A trader's licence will lapse if the trader remains unregistered for two years. Traders renewing their registration are required to pass the SDX examination again.

All registered traders must attend a web-based refresher course in the event of major system adaptations or regulatory amendments, but every two years at the latest. If the refresher course is not attended by the set deadline, SDX Exchange may suspend the trader.

Additional information regarding the examination fees may be obtained from SDX Exchange and are available on the website of SDX Exchange.

2.1 Structure of the Trader Examination

The trader examination is an electronic examination. A computer program uses a random number generator to select 25 questions from a pool; questions are selected individually for each candidate. Candidates will be taking the test in English. Candidates register for the examination through the submission of the trader registration and modification form and trader admission form.

2.1.1 Question Types and Evaluation

The examination comprises two different types of questions:

- Multiple-response questions with up to five possible answers
- True/False questions

In multiple-response questions, one or more answers may be right. In order to answer the question fully and correctly, all correct answers must be selected.

All questions are weighted equally. If a question has multiple correct answers, the number of right answers given is restated as a percentage of the number of possible right answers. Wrongly answered questions result in point deduction of that question.

3 SDX

The SDX Exchange, jointly with the SIX Digital Exchange AG (SDX CSD), offer an integrated securities trading and settlement solution based on distributed ledger technology (DLT). SDX Exchange is a subsidiary of SDX CSD and SDX CSD is a subsidiary of SIX Group AG. Both SDX-companies (together SDX) have been founded in 2018. In 2021, FINMA has granted a Stock Exchange licence for SDX Exchange and a Central Securities Depository licence for SDX CSD, according to the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (FinMIA, SR 958.1) and the Federal Ordinance on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (FinMIO, SR 958.11). SDX Exchange assumes all tasks related to trading whereas the settlement of transactions is carried out via the SDX CSD and its DLT infrastructure.

SDX changes today's value chain through technical innovation and renders, among other things, clearing services of central counterparties obsolete. This change is enabled by the so-called "Atomic Trading and Settlement" (see chapter 9.1 for a detailed description of the process).

4 Participants

4.1 Admission Requirements

An applicant must fulfil the admission requirements according to Clause 3 Trading Rules, i.e. he must:

- a. have a licence as a securities firm or remote member of SDX Exchange from FINMA or otherwise be under FINMA supervision, provided that he meets equivalent technical and operational requirements to those of securities firms;
- b. have provided a deposit, if SDX Exchange demands one in accordance with Clause 3.3 Trading Rules;
- c. meet the requirements for connecting to the exchange system; and
- d. be a participant of the settlement organisation of SDX CSD.

4.2 Participants Admission

SDX Exchange shall admit an applicant as a participant and conclude a participation agreement with it, providing it meets the following detailed admission requirements.

4.2.1 Possible Categories of Participants

The following can be admitted to SDX Exchange as participants:

- a. securities firms in accordance with Art. 41 of the Federal Act of 15 June 2018 on Financial Institutions (FinIA, SR 954.1);
- b. other entities monitored by FINMA in accordance with Art. 3 of the Federal Act of 22 June 2007 on Financial Market Supervision (FINMASA, SR 956.1), provided that SDX Exchange ensures that they meet equivalent technical and operational requirements to those of securities firms;
- c. foreign participants approved by FINMA in accordance with Art. 40 FinMIA; or
- d. the Swiss National Bank (SNB).

4.2.2 Participation in a Settlement Organisation

The applicant must be a participant in the settlement organisation of SDX CSD.

4.2.3 Collateral Deposit

SDX Exchange may require participants to pay a collateral deposit, which is used to secure outstanding financial obligations to SDX Exchange.

Details are laid down in the "Admission of Participants" Directive.

4.2.4 Connection to the SDX Exchange System

The applicant must satisfy the technical and operational requirements in order to be connected to the trading platform of the SDX Exchange ("exchange system").

The details are laid down in the "Technical Connectivity" Directive.

4.3 Participants' Rights and Obligations

Admission entitles the participant to take part in exchange trading for its own account and that of third parties.

4.3.1 Continued Compliance with Admission Requirements

The participant must comply with the admission requirements laid down in the Trading Rules for as long as it remains a participant.

4.3.2 Compliance with Statutory and Regulatory Provisions

The participant undertakes to comply with and enforce internally:

- a. the code of conduct for securities trading, as laid down in the Federal Act on Financial Services (FinSA, SR 950.1), the FinMIA, the associated ordinances, the relevant FINMA circulars, and the corresponding professional standards;
- b. those domestic and foreign exchange-related laws that apply to it, the corresponding implementing provisions and the rulings of the relevant supervisory authority; and
- c. the Trading Rules, the Directives as well as rulings issued by SDX Exchange and/or the regulatory bodies ("Regulatory Bodies").

4.3.3 Appropriate Organisation and Registration Obligations

4.3.3.1 Principle

The participant must:

- a. have a sufficient number of staff with the necessary specialist expertise, experience and training for stock exchange trading and its processing;
- b. issue appropriate internal guidelines and monitor compliance with the Trading Rules;
- c. appoint one or more internal officers to support the participant and its staff in complying with the Trading Rules; and
- d. Register responsible persons, specifically traders, with the SDX Exchange and report any changes to the SDX Exchange immediately.

Foreign participants and “other participants monitored by FINMA in accordance with FINMASA” (see Clause 3.1 let. b) and c) Trading Rules) are also obliged to meet (equivalent) technical and operational requirements to those of securities firms at all times.

SDX Exchange may suspend or revoke existing registrations.

Details are laid down in the “Admission of Participants” Directive.

4.3.3.2 Registration of Traders

The participant undertakes to register traders who trade on SDX Exchange.

Such registrations must be made with the SDX Exchange. SDX Exchange registers traders who are of good repute and can display to SDX Exchange that they possess sufficient specialist knowledge. Traders must be subject to the participant’s direct right of instruction at all times and acknowledge the regulations of SDX Exchange and/or the Regulatory Bodies (incl. enforcement and sanctioning by the Regulatory Bodies).

SDX Exchange allocates an identification number to each registered trader. The exchange system shall record all system entries along with the trader’s ID number. The identification number is personal but may be given to other registered traders for purposes of proxy. The participant shall ensure the traceability of this proxy.

Details are laid down in the “Admission of Participants” Directive.

4.3.4 Reporting Obligation

The participant is subject to a reporting obligation in respect of all trades in securities that are admitted to trading on SDX Exchange. This obligation may be fulfilled by reporting to SDX Exchange.

Trade Reports for trading on SDX Exchange are generated by the exchange system automatically. By contrast, participants must submit transaction reports in accordance with the provisions of Clause 11 Trading Rules.

The details are laid down in the “Reporting Office Rules”.

4.3.5 Duty to Provide Information

The participant is obliged to inform SDX Exchange and/or SIX Exchange Regulation immediately if:

- a. it has violated the Trading Rules or is unable to comply with it;
- b. there is a technical problem connecting to the exchange system;
- c. it is no longer able to meet (equivalent) technical and operational requirements to those of securities firms;
- d. the relevant supervisory authority has instigated proceedings against it, its traders or a person as described in Clause 4.3.1 para. 1 let. d) Trading Rules, or has issued a ruling, if these proceedings or rulings are relevant to the admission requirements or registration; or
- e. access to the SDX CSD settlement organisation has been or is very likely to be suspended or terminated.

Furthermore, while obliged to uphold statutory confidentiality requirements, the participant must provide access to documents and all such information as is required to maintain an orderly market and to enforce the provisions of the Trading Rules (Clause 16 Trading Rules).

Where statutory confidentiality requirements apply, SDX Exchange and/or the Regulatory Bodies may require information in anonymous form.

4.3.6 Use of the Exchange System

The participant undertakes to use the exchange system in accordance with the provisions laid down by SDX Exchange.

In particular, the participant must refrain from

- a. manipulating or modifying the exchange system and its interfaces; and
- b. improper use or passing on of exchange software or data received from the exchange system.

The details are laid down in the "Technical Connectivity" Directive.

4.4 Liquidity Providers

The admitted liquidity provider shall ensure a liquid market by placing orders or quotes in the order book of individual securities.

The rights and duties of the liquidity provider shall be defined by SDX Exchange per trading segment and trading service.

The details for liquidity providers are laid down in the "List of Charges under the Listing and Trading Rules".

SDX Exchange may offer a liquidity provider that fulfils its obligations faultlessly better terms than those that apply to other participants.

SDX Exchange determines those trading segments with liquidity providers, and may admit one or more liquidity providers for each security, as set out in Clause 5 of the Trading Rules.

The details are laid down in the "Trading" Directive and the "List of Charges under the Listing and Trading Rules".

4.5 Liability

4.5.1 Liability of SDX Exchange and/or the Regulatory Bodies

With the exception of intent and gross negligence on the part of its bodies or employees, SDX Exchange and/or the Regulatory Bodies shall not be liable for the loss or damage that a participant, its clients or third parties might sustain from actions or omissions by SDX Exchange and/or the Regulatory Bodies.

Specifically, SDX Exchange and/or the Regulatory Bodies shall bear no liability for damage or loss as a result of:

- a. measures taken by SDX Exchange in special situations;
- b. rulings issued by SDX Exchange and/or the Regulatory Bodies;
- c. the full or partial unavailability of the exchange system and settlement infrastructure or other technical problems;
- d. incorrect or incomplete data processing or distribution;
- e. improper manipulation by participants or third parties; and
- f. the interruption or termination of participation or the suspension or exclusion of a participant.

SDX Exchange and/or the Regulatory Bodies shall accept no liability for claims extending beyond direct losses, for example compensation for indirect losses or consequential losses such as lost profit or additional expenses.

4.5.2 Liability of the Participant

The participant is liable for actions and omissions by the participant's internal bodies, employees and agents.

The participant undertakes to ensure the necessary precautions to prevent loss. Specifically, it must have appropriate systems, controls and processes to monitor trades and transaction processing and to reduce potential risks.

4.6 Suspension and Termination of Participation

4.6.1 Suspension of Participation

SDX Exchange may, at any time, block a participant's access to the exchange system and/or delete its orders and cancel trades if:

- a. it fails to comply with the rules of SDX Exchange;
- b. the participant defaults on payments connected to monetary claims by SDX Exchange, or if insolvency is threatened or has already occurred;
- c. debt restructuring, composition or liquidation proceedings are instigated against the participant, or criminal proceedings commenced against the participant or one of its senior bodies; and
- d. the participant does not use the exchange system for a considerable period of time.

SDX Exchange may publicly announce the suspension of participation and name the participant concerned.

A participant may also be suspended in connection with sanction proceedings.

4.6.2 Termination of Participation

4.6.2.1 Termination

The participant or SDX Exchange may terminate the participation agreement at any time subject to a notice period of four weeks, effective at the end of a month.

The right to exclude a participant in connection with sanction proceedings remains reserved.

4.6.2.2 Consequences of Terminating Participation

Termination shall result in the cancellation of the participation agreement. Regardless of such termination, the participant must continue to fulfil all of its obligations to the companies of SIX Group.

SDX Exchange shall publicly announce the termination of a participant's participation.

4.7 Possibilities of Appeal

The participant may lodge an appeal with the independent Appeals Board against the following decisions by SDX Exchange:

- a. refusal to admit the participant;
- b. exclusion;
- c. refusal to register a trader; and
- d. withdrawal of the registration of a trader.

Proceedings shall be governed by the Rules that apply to SDX Exchange Appeals Board.

4.8 Market Conduct

The participant as well as its traders must comply with applicable market codes of conduct, in particular those laid down in Art. 143 FinMIA and the FINMA Circular "Market Conduct Rules" (FINMA Circular 2013/8), uphold the integrity of the market at all times and refrain from unfair trading practices. There must be an economic justification for securities transactions, and they must reflect a genuine relationship between supply and demand.

In particular, the following trading practices are forbidden:

- a. concluding securities transactions and entering orders to give the impression of market activity or liquidity, or to distort market prices or the valuation of securities, as well as fictitious trades and orders;
- b. concluding securities transactions at prices that differ substantially from those set on SDX Exchange, where this compromises the integrity of the market;
- c. entering agreed buy and sell orders in the order book where the entry of the order and the subsequent counter-order occur within the same auction; and
- d. entering buy and sell orders in a single security for the same beneficial owner. The ban shall not cover simultaneous buy and sell orders for the participant's own account if the participant can prove that individual orders were entered independently of each other and without any form of agreement in the exchange system. The participant shall ensure the necessary precautions to prevent impermissible cross-transactions.

Trades that are attributable to improper market conduct shall be cancelled by SDX Exchange or by the participant on the instruction of SDX Exchange (for details of the cancellation process, please refer to Clause 14.3 of the "Trading" Directive). Despite such cancellation, sanctions by the Regulatory Bodies remain reserved.

Details are laid down in the "Trading" Directive.

5 Technical Connectivity

The requirement for all types of connectivity to the exchange system is that the provisions of SDX Exchange's rules and regulations are complied with and the exchange system is not negatively affected or damaged by the participant connecting to it.

The participant must ensure that its business is entitled to connect to the exchange system and carry out the planned activities in accordance with the applicable laws and regulations.

5.1 Definitions and Abbreviations

Term	Explanation
Connection infrastructure	Exchange infrastructure, i.e. the interfaces for trading securities and obtaining market data.
Access infrastructure	Infrastructure of the participants and Application Service Provider (ASP) for connectivity to the exchange system for the purposes of trading and obtaining market data.

Table 1 Definitions and Abbreviations: Technical Connectivity

5.2 Direct Connectivity for Trading Participants

Technical connectivity of the participant with the exchange system is accomplished via proprietary applications.

SDX Exchange may grant on application of a participant the use of the connectivity infrastructure of a third party commissioned by the participant and approved by SDX Exchange if compliance with the provisions of SDX Exchange's rules and regulations is also ensured by the third party. In particular, this also includes mandatory participation in the settlement CSD recognised by SDX Exchange.

The technical connectivity of proprietary applications and the connectivity infrastructure of third parties is the responsibility of the participant. SDX Exchange may undertake or demand an acceptance run or certification of such proprietary applications and connectivity infrastructure.

If the proprietary applications or the connectivity infrastructure or leased lines of a third party put the operation of the exchange system at risk, SDX Exchange may prohibit or suspend the use of such.

5.3 Interfaces

5.3.1 Trading Interfaces

Participants may choose from several interfaces by which to connect to trading. These alternatives are described here. Participants select the interface that is most suitable for them and recognise that not all interfaces offer the same functionality. The participants themselves are responsible for choosing the correct interface.

5.3.1.1 **FIX Trading Interface (FTI)**

The FIX Trading Interface (FTI) enables participants to connect for trading. It supports the entry of orders and receives execution confirmations for further processing.

5.3.1.2 **OUCH Trading Interface (OTI)**

The OUCH Trading Interface (OTI) provides the most rapid order input and order maintenance. It enables participants direct access to all trading services. It supports the entry of orders and receives execution confirmations for further processing.

5.3.1.3 **Quote Trading Interface (QTI)**

The Quote Trading Interface (QTI) enables liquidity providers direct access to the order book. It supports the entry of quotes and receives execution confirmations for further processing.

5.3.2 Market/Reference Data Interfaces

5.3.2.1 Reference Data Interface (RDI)

The Reference Data Interface (RDI) enables participants and market data recipients to obtain reference data.

For the use and further transmission of reference data and market information, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG.

The details are laid down in the "Market Information" Directive.

5.3.2.2 ITCH Market Data Interface (IMI)

The ITCH Market Data Interface (IMI) enables the participants and market data recipients to obtain real-time market information.

For the use and further transmission of market information, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG.

The details are laid down in the "Market Information" Directive.

5.3.2.3 SIX MDDX Multi-Dimensional Data fluX™ Interface (SIX MDDX)

The SIX MDDX Multi-Dimensional Data fluX™ Interface (SIX MDDX) enables the participants, ASP and market data recipients to obtain real-time market information.

For the use and further transmission of market information, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG.

The details are laid down in the "Market Information" Directive.

6 Trading

On SDX Exchange, *on-exchange*, *on-book* trading is supported by the exchange systems in accordance with SDX Exchange rules.

Off-exchange trading is possible. Details of reporting requirements for such trades are governed by the Reporting Office Regulations of SDX Exchange.

6.1 Auction Model

SDX Exchange offers one market model, the so called "Auction Model"; continuous trading is not provided. In the case of an open order book, the exchange system triggers an auction as soon as an executable situation according to the matching rules exists. Such an auction consists of a call period and an execution period ("Uncrossing&Settlement"). During the call period, additional orders that may be executable can be included in the respective auction. In this period, the theoretical price and the theoretical volume are calculated and published. In the execution period, the exchange system aggregates the executable orders and quotes subject to the condition precedent of their executability and then transmits them to the central securities depository (SDX CSD), which either settles them in their entirety or rejects them.

The combination of two or more orders or quotes in an auction, results in a purchase contract subject to the condition precedent of fulfilment of all obligations established in the auction. This means that the seller must hold enough of the specific securities-token and the buyer must hold enough of the cash-tokens on their accounts to settle the trades to be concluded at the end of the auction.

The execution phase (and thus the fulfilment of the condition) is triggered by the exchange system transmitting an instruction to the securities settlement system (SDX CSD), which contains settlement instructions for all orders or quotes combined in the auction (multilateral settlement instruction). The settlement system executes these instructions on an all-or-nothing basis (see Clause 14 Trading Rules). Accordingly, the shortage of cover of even one of the securities or cash accounts involved will result in the rejection of the entire transaction, with the consequence that all exchange transactions concluded in the auction subject to a condition precedent will finally not become legally valid (see Clauses 14 para. 1, 15.2.1 Trading Rules). Those orders, which caused the failure of the previous auction due to a shortage of sufficient assets are removed from the order book by the exchange system. The remaining orders or quotes retain their time priority.

If there is still an executable situation in the order book after the uncovered orders have been deleted, a new auction is triggered immediately.

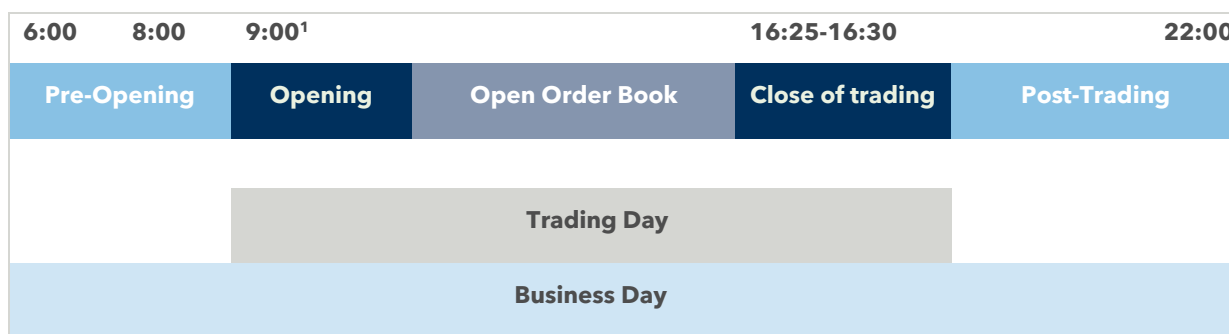
In case a participant enters in an auction without having enough assets or in case a participant disposes of the respective assets while participating in an auction, this is not considered acting contrary to good faith (Art. 156 of the Federal Act of 30 March 1911 on the Amendment of the Swiss Civil Code (Part Five: Swiss Code of Obligations (CO), SR 220)). To ensure the functioning of the trading model however, SDX Exchange may impose contractual penalties in case the settlement of trades and thus the auctions fail because one of the participants does not have enough assets, i.e. securities-token and/or cash-token on their account. The details to the contractual penalties are defined in the List of Charges under the Listing and Trading Rules of SDX Exchange. These penalties are independent from the sanctioning regime of SIX Exchange Regulation.

6.2 Trading Day and Trading Periods

SDX Exchange specifies the trading days in the trading calendar and publishes these in a suitable way.

A trading day shall consist of the following trading periods:

- a. pre-opening from 06:00 to 09:00 (CET);
- b. opening from 09:00 (CET) with random opening within two minutes;
- c. depending on the segment:
Equity: trading in the open order book from opening until 16:25 (CET)
Bonds: trading in the open order book from opening until 16:30 (CET);
- d. depending on the segment:
Equity: closing auction from 16:25 until 16:30 (CET) with any final combination of an auction's orders within 5 minutes of its start;
Bonds: close of trading without closing auction 16:30 (CET);
- e. post-trading from close of trading until 22:00 (CET).



6.2.1 Pre-Opening

Pre-opening shall be the period between the start of the trading day and the actual opening of trading.

Participants and liquidity providers may enter new orders and quotes in the order book or delete existing ones.

SDX Exchange shall calculate the theoretical opening price (TOP) in the auction procedure and publish it on an ongoing basis.

No transaction and therefore no price formation shall take place.

6.2.2 Opening and Opening Auction

SDX Exchange shall open trading with an auction if, after opening, there is a situation in the order book that can be executed.

There is a randomised opening between 9:00 – 9:02 (CET) for equities and bonds.

6.2.3 Open Order Book

During the open order book trading period, orders and quotes that can be executed do not lead directly to trades, rather an auction is triggered as soon as there is a situation that can be executed (see also description under Clause 7 Trading Rules).

If an order cannot or can only be partially executed, the remainder shall remain in the order book.

SDX Exchange will extend the call phase if the theoretical price is outside the range of the reference price.

SDX Exchange may in certain instances interrupt trading.

The reference price shall be the price paid last. Reference price adjustments remain reserved.

6.2.4 Close of Trading with Closing Auction

Immediately before the close of trading, an auction is conducted in accordance with the principle of highest executable volume. If there is a trade in the auction, this price shall be the

¹ The start of opening and start of closing of trading depend on the individual segment. The opening and closing times for equities are shown here as examples.

closing price and the new reference price. If there is no trade in the auction, the last trade of the day shall be the closing price.

There is a randomised closing between 16:30 - 16:32 (CET) for equities only.

SDX Exchange reserves the right to extend the call phase if the theoretical price is outside the range of the reference price. After the closing auction call period, an "Uncrossing&Settlement" phase starts. If the book is still crossed after the first "Uncrossing&Settlement", a regular auction call period starts, followed by another "Uncrossing&Settlement". This process is repeated until a forced close of the orderbook is triggered after a predefined time period after the end of the closing auction call period.

SDX Exchange may adjust the reference price in certain cases.

6.2.5 Close of Trading without Closing Auction

If trading closes without an auction, trading closes after the end of the "open order book" trading period.

The closing price and reference price shall correspond to the price last established in the open order book.

SDX Exchange may adjust the reference price in certain cases.

6.2.6 Post-Trading

After the close of trading, SDX Exchange shall delete all non-executed orders whose validity ends on the date of the current trading day.

Participants and liquidity providers may enter new orders and quotes in the order book or delete existing ones. Orders with a validity date of the current trading day shall not be accepted.

SDX Exchange shall calculate the following day's TOP in the auction procedure and publish it on an ongoing basis.

No transaction and therefore no price formation shall take place.

Quotes shall expire at the end of the trading day.

6.3 Settlement Day

The settlement day is determined by the settlement organisation of SDX CSD. The trading hours in accordance with Clause 4 of the "Trading" Directive have been set within the settlement day.

6.4 Trading Hours

Trading hours are defined for each trading segment.

In special situations SDX Exchange may modify trading hours.

The details are laid down in the "Trading Parameters" Guideline.

6.5 Trading Segments

SDX Exchange defines the trading segments and allocates securities to these trading segments.

The "Trading" Directive determines the trading details, specifically the trading days and settlement days, trading periods and the market model.

The "Trading Parameters" Guideline sets out the provisions which apply to the individual trading segments.

6.5.1 Overview Equity and Bond Market

The following two tables provide an overview of the two trading segments equity and bond market.

Equity Market

		Shares	SDX SME Equity
Regulatory Standards		International Reporting Standards	Standard SDX SME Equity
Market Model		Central Limit Order Book (CLOB)	Central Limit Order Book (CLOB)
Order Types		Normal Orders (CLOB) An unscheduled batch auction takes place in the event of a book cross.	Normal Orders (CLOB) An unscheduled batch auction takes place in the event of a book cross.
Self-Match Prevention		No	No
Trading Hours	Trading Hours	09:00 - 16:30 CET	14:00 - 16:30 CET
	Open Book	09:00 - 16:25 CET	14:00 - 16:25 CET
	Closing Auction	16:25 - 16:30 CET	16:25 - 16:30 CET
	Randomised Opening	2 minutes, 09:00 - 09:02 CET	2 minutes, 14:00 - 14:02 CET
	Randomised Closing	2 minutes, 16:30 - 16:32 CET	2 minutes, 16:30 - 16:32 CET
Price Collar		9	9
Maximum Order Value		CHF 10'000'000 or the equivalent amount in foreign trading currency	CHF 10'000'000 or the equivalent amount in foreign trading currency
Round Lot		A standard round lot is equivalent to the smallest tradeable denomination	A standard round lot is equivalent to the smallest tradeable denomination
Price Steps		Please refer to Tick Size MiFIDII Tick Size Table in the Tick Size page of the Trading Guide	Please refer to Tick Size MiFIDII Tick Size Table in the Tick Size page of the Trading Guide
Trading Interruptions		No	No
Auction	Auction Call Period	5 Seconds	5 Seconds
	Auction Call Extension	20 seconds	20 seconds

		Shares	SDX SME Equity
	Closing Auction Period	5 minutes	5 minutes
Off Exchange	Trade Reporting	Yes	Yes
	Reporting Time	1 minute	1 minute
	Publication	Deferred publication on request for trade reporting based on ADT	Deferred publication on request for trade reporting based on ADT
Clearing & Settlement	Settlement Cycle	Atomic	Atomic
	Settlement Eligible	Yes	Yes
	Clearing Eligible	No	No
Counterparty Disclosure		Yes	Yes

Table 2 Overview Equity Market

Bond Market

		Bonds	Bonds - EUR
Regulatory Standards		Standard for Bonds	Standard for Bonds
Market Model		Central Limit Order Book (CLOB)	Central Limit Order Book (CLOB)
Order Types		Normal Quotes An unscheduled batch auction takes place in the event of a book cross.	Normal Quotes An unscheduled batch auction takes place in the event of a book cross.
Self-Match Prevention		No	No
Trading hours	Trading Hours	09:00 - 16:30 CET	09:00 - 16:30 CET
	Open Book (con.)	09:00 - 16:30 CET	09:00 - 16:30 CET
	Closing Auction	None	None
	Randomised Opening	2 minutes, 09:00 - 09:02 CET	2 minutes, 09:00 - 09:02 CET
	Randomised Closing	None	None
Price Collar		9	9
Maximum Order Value		CHF 10'000'000	CHF 10'000'000
Round Lot		A standard round lot is equivalent to the smallest tradeable denomination	A standard round lot is equivalent to the smallest tradeable denomination
Price Steps	Maturity \geq 18 Months	0.05% independent of order price	Maturity \geq 18 Months 0.05% independent of order price
	Maturity < 18 Months	0.01% independent of order price	Maturity < 18 Months 0.01% independent of order price

		Bonds	Bonds - EUR
Trading Interruptions		No	No
Auction	Auction Call Period	1 Second	1 Second
	Auction Call Extension	10 Seconds	10 Seconds
Off Exchange	Trade Reporting	Yes	Yes
	Reporting Time	15 minutes	15 minutes
	Publication	Deferral to T+1. 7am is possible by request if bond is illiquid or trade qualifies for Large in Scale post-trade transparency waivers	Deferral to T+1. 7am is possible by request if bond is illiquid or trade qualifies for Large in Scale post-trade transparency waivers
Clearing & Settlement	Settlement Cycle	Atomic	Atomic
	Settlement Eligible	Yes	Yes
	Clearing Eligible	No	No
Counterparty Disclosure		Yes	Yes

Table 3 Overview Bond Market

6.6 Order Placement: Orders and Quotes

6.6.1 Order Book

SDX Exchange maintains an order book for each security. These order books shall classify and manage all orders according to price and the time at which they are received by SDX Exchange.

Details are laid down in the "Trading" Directive.

6.6.2 Orders and Quotes

In addition to orders, quotes are also permitted depending on the trading segment.

In trading segments that support the entry of quote, the auction model treats orders and quotes equally.

6.6.3 Order

6.6.3.1 Definition

In accordance with Clause 10.2 Trading Rules, an order is a binding offer to buy or sell a certain quantity of a security at an unlimited or limited price.

Orders may be entered in or deleted from the order book during set periods. All incoming orders shall be assigned a time stamp and an identification number. Amended orders shall lose their original time priority and be given a new time stamp.

An order may be entered at any time during the trading day and is visible in the order book. Non-executed parts of the order remain in the order book until they have been executed or deleted or have expired. Other order specifications remain reserved.

6.6.3.2 Order Specification

An order must be recorded with the following attributes:

Attribute	Entry
Direction/Side	Mandatory Buy or Sell
Security	Mandatory
Order Volume	Mandatory Number of securities or nominal value for percent-listed instruments
Price Type	Mandatory Unlimited (at market) or limited
Validity	Optional At-the-opening: May be entered only during pre-opening and remains valid up to and including opening. Non-executed parts of the order shall be deleted after opening. At-the-close: May only be entered before the closing auction. Non-executed parts of the order shall be deleted after the closing auction. Orders with the order specification at-the-close are not visible in the order book until the start of the closing auction. Good-for-day: Valid until the close of trading on the current trading day. Good-till-date: Valid until the close of trading on a certain trading day. The maximum term of validity shall be one year. If the validity period is not defined, the order will expire after close of trading.
Algorithmic Trading	Mandatory The participant must report the operation of algorithmic trading to SDX Exchange and must flag orders generated by such algorithmic trading. It must use a separate identification for each algorithm and must also indicate the traders who initiated these orders.
Trading Capacity	Mandatory as client transaction, if trading takes place in the participant's own name but for the account of the client (Riskless Principal); and as proprietary transaction, if trading takes place in the participant's own name and for his own account (Principal).
Participant ID	Mandatory
Trader ID	Mandatory

Table 4 Order Specification

Details are laid down by SDX Exchange in the relevant technical specifications.

6.6.4 Quote

6.6.4.1 Definition

Quote specifies the simultaneous entry of one or more limited buy and/or sell orders in a single instruction. It shall remain in the order book until it is executed, overwritten or deleted.

6.6.4.2 Quote Specification

A quote must be recorded with the following attributes:

Attribute	Entry
Direction/Side	Mandatory

Attribute	Entry
	Buy or Sell
Security	Mandatory
Order Volume	Mandatory Number of securities or nominal value for percent-listed instruments
Price Type	Mandatory Limited
Validity	Good-for-day: valid until the end of the current trading day
Algorithmic Trading	Mandatory The participant must report the operation of algorithmic trading to SDX Exchange and must flag orders generated by such algorithmic trading. It must use a separate identification for each algorithm and must also indicate the traders who initiated these orders.
Trading Capacity	Mandatory as client transaction, if trading takes place in the participant's own name but for the account of the client (Riskless Principal); and as proprietary transaction, if trading takes place in the participant's own name and for his own account (Principal).
Participant ID	Mandatory
Trader ID	Mandatory

Table 5 Quote Specification

Details are laid down by SDX Exchange in the relevant technical specifications.

6.7 Price-Time Priority

The price-time priority principle means that the order or quote with the better price (highest price limit for buy orders, lowest price limit for sell orders) shall be executed first. Unlimited orders enjoy top priority when consolidating orders. For orders with the same price, the order received first shall also be executed first.

6.8 Pre-Trade Controls

SDX Exchange may reject orders and quotes which exceed predetermined volume and price thresholds (pre-trade controls), in particular where:

- the price limit of the incoming order or quote reaches or exceeds the upper price range (reference price multiplied by the Price Collar Factor) for the security;
- the price limit of the incoming order or quote reaches or falls short of the lower price range (reference price divided by the Price Collar Factor) for the security;
- the value of the incoming order or quote reaches or exceeds the Maximum Order Value (the order volume multiplied by the price limit for the order) for the security; or
- the volume of the incoming order or quote reaches or exceeds the Maximum Order Volume (maximum order value divided by the reference price) for the security.

The Price Collar Factor used to calculate the price range, as well as the Maximum Order Value in Swiss francs, are determined by SDX Exchange for each trading segment. The details are laid down in the "Trading Parameters" Guideline.

The reference price of the previous trading day is used to determine the pre-trade controls.

SDX Exchange shall publish exceptions for individual securities or trading days in a suitable manner.

Market control interventions remain reserved in accordance with the “Market Control” Directive.

6.9 Open Order Book

The open order book for the trading period lists the incoming orders or quotes that match with orders or quotes on the other side of the order book and lead to a situation that can be executed; this does not immediately lead to a trade, and instead triggers an auction’s call phase.

The following rules shall apply:

- a. An incoming order or quote shall be checked for feasibility and whether it is consistent with the price levels in the order book;
- b. If a limited order is not or is only partially executed in an auction, it shall be placed in the order book with its limit and time stamp. Other order validities remain reserved;
- c. If an unlimited order is not or is only partially executed, it is placed in the order book with a time stamp if it has neither expired nor been withdrawn.

6.10 Auction and Principle of Highest Executable Volume

During the call phase, the participant may enter new orders or quotes in the order book or delete existing ones without executions coming about. Orders and quotes are finally combined after the end of the auction's call phase. Final execution in the order book is dependent on the settlement of combined orders or quotes and is not communicated until settlement has been confirmed.

The following rules shall apply to the performance of auctions:

- a. The orders in an auction already finally combined cannot expire or be deleted or modified while the final combination of orders and the settlement process are still running. However, the orders in an auction that have not yet been finally combined can still be deleted or modified;
- b. The length of the call phase before the auction can vary based on the trading segment of the respective instrument (Auction Call Period). After a minimum length of time, the call phase will be extended by an unspecified length of time (this unspecified length of time will at least be shorter than the call phase) (Randomised Opening);
- c. SDX Exchange reserves the right to extend the call phase (Auction Call Extension) if the auction's theoretical execution price deviates from the reference price by a specific amount (reference price collar, see "Trading Parameters" Guideline);
- d. SDX Exchange reserves the right to extend the call phase of the auction if the auction's theoretical execution price results in mistrades in accordance with Clause 6 of the "Market Control" Directive;
- e. If a contingently concluded trade arising from an order or quote cannot be settled in conjunction with the final combination of an auction's orders, the final combination of orders in this auction is not finalised and none of the contingently concluded trades of the auction can be finalised;
- f. The orders that caused settlement to fail as the participant did not have the necessary securities or means of payment are removed from the book. Also, SDX Exchange may remove all of a participant's orders on one or both sides of the book if it deems this to be necessary to safeguard trading. If there are still orders in the book that allow a situation that can be executed, this results in an auction.

The price of the auction shall be determined taking into account all limited and unlimited orders and quotes in the order book and, in certain cases, by the reference price. Orders and quotes shall be treated equally in the auction.

According to the principle of highest executable volume the largest possible quantity of orders and quotes shall be executed at a single price specified in the auction. The following rules shall apply:

- a. orders shall be considered in accordance with the price-time priority principle;

- b. unlimited orders shall be executed with limited and unlimited orders on the opposite side;
- c. first unlimited and then limited orders shall be executed until one side of the book is empty or the best purchase price remaining in the order book is lower than the best sale price;
- d. if two unlimited orders of the same quantity are executed last, the price of the auction shall correspond to the reference price. If the reference price is lower (higher) than the best purchase order (sell order) remaining in the book, this remaining order shall determine the price of the auction;
- e. if one unlimited and one limited order are executed last, the price of the auction shall correspond to the remaining limit;
- f. if limited orders of different quantities are executed at two price levels last, the price of the auction corresponds to the price level of the larger order quantity;
- g. if limited orders of equal quantities are executed at two price levels last, the price of the auction shall correspond to the arithmetic mean of both price steps, rounded up to the next valid price level. If the arithmetic mean is lower (higher) than the best purchase order (sell order) remaining in the book, this shall determine the price of the auction;
- h. SDX Exchange shall calculate the theoretical opening price of the auction during the call phase and publish it on an ongoing basis.

The price for all trades in the auction shall be determined by the last price establishment in accordance with the rules of this chapter.

The details are laid down in the "Trading Parameters" Guideline.

6.11 Examples Matching Rules

Market Orders with same volume

Execution of unlimited orders/market orders of the same volume against each other at the reference price.

Reference price: CHF 70.00

Bid Size	Bid	Ask	Ask Size
1000	M	M	1000

Bid Size	Price	Ask Size
1000	Market	1000

In this order book situation, the price is equal to the reference price.

→ Price: CHF 70.00

Market Orders with limits remaining in the book

The limits remaining on the order book determine the price for execution of market orders of the same volume if:

Reference price: CHF 70.00

Example A: Reference price < remaining buy limit → price = remaining buy limit

Bid Size	Bid	Ask	Ask Size
1000	M	M	1000
200	71.00		

Bid Size	Price	Ask Size
1000	Market	1000
200	71.00	

Since the reference price is lower than the remaining buy limit, the buy limit determines the price.

→ Price: CHF 71.00

Example B: Reference price > remaining sell limit → price = remaining sell limit

Bid Size	Bid	Ask	Ask Size
1000	M	M	1000
		68.00	100

Bid Size	Price	Ask Size
1000	Market	1000
	68.00	100

Since the reference price is higher than the remaining sell limit, the sell limit determines the price.

→ Price: CHF 68.00

Example C: Reference price < remaining sell limit → price = reference price

Bid Size	Bid	Ask	Ask Size
1000	M	M	1000
		71.00	100

Bid Size	Price	Ask Size
1000	Market	1000
	71.00	100

Since the reference price is lower than the remaining sell limit, the reference price determines the price.

→ Price: CHF 70.00

Matching at the best remaining limit

If the market and limit order meet, matching is always at the best remaining limit.

Example A:

Bid Size	Bid	Ask	Ask Size
1000	M	68.00	600
		69.00	400
		70.00	100

Bid Size	Price	Ask Size
1000	Market	
	70.00	100
	69.00	400
	68.00	600

In this order book situation, the price is equal to the best remaining sell limit.

→ Price: CHF 69.00

Example B:

Bid Size	Bid	Ask	Ask Size
1000	Market	68.00	1000

Bid Size	Price	Ask Size
1000	Market	
	68.00	1000

In this order book situation, the price is equal to the sell limit, since there are no better sell limits

remaining.

→ Price: CHF 68.00

Please note:

The term "remaining" could be misconstrued, since the limit that it refers to is still included in the execution or used as an alternative execution result to be compared with the reference price.

Limit Orders with different limits and volumes

If limit orders with different limits and volumes are matched, the price is determined by the limit with the higher order volume.

Example A: Buy Order volume > Sell Order volume

Bid Size	Bid	Ask	Ask Size
1000	70.00	69.00	100

Bid Size	Price	Ask Size
1000	70.00	
	69.00	100

The price is equal to the limit with the highest order volume.

→ Price: CHF 70.00

Example B: Sell Order volume > Buy Order volume

Bid Size	Bid	Ask	Ask Size
500	70.00	69.00	600

Bid Size	Price	Ask Size
500	70.00	
	69.00	600

The price is equal to the limit with the highest order volume.

→ Price: CHF 69.00

Limit Orders with different limits and same volumes

If limit orders with different limits and the same volume are matched, the price is determined from the arithmetical mean of the limits (rounded up to the nearest valid price step).

Bid Size	Bid	Ask	Ask Size
500	70.00	69.00	500

Bid Size	Price	Ask Size
500	70.00	
	69.00	500

Example with no Price Stepping:

The price is equal to the arithmetical mean.

→ Price: CHF 69.50

Example with Price Stepping:

The price is equal to the arithmetical mean (rounded value).

→ Price: CHF 70.00

Limit Orders with different limits and same volumes and additional Limit Order

If the best remaining buy limit (sell limit) on the order book is higher (lower) than the arithmetical mean, the price is determined by the latter.

Example A: Buy Limit > arithmetical mean

Bid Size	Bid	Ask	Ask Size
700	70.00	69.00	700
100	69.75		

Bid Size	Price	Ask Size
700	70.00	
100	69.75	
	69.00	700

The price is equal to the remaining buy limit, since it is higher than the arithmetical mean (69.50).

→ Price: CHF 69.75

Example B: Sell limit < arithmetical mean

Bid Size	Bid	Ask	Ask Size
700	70.00	69.00	700
		69.40	100

Bid Size	Price	Ask Size
700	70.00	
	69.40	100
	69.00	700

The price is equal to the remaining sell limit, since it is lower than the arithmetical mean (69.50).

→ Price: CHF 69.40

Example C: Sell limit > arithmetical mean

Bid Size	Bid	Ask	Ask Size
700	70.00	69.00	700
		69.80	100

Bid Size	Price	Ask Size
700	70.00	
	69.80	100
	69.00	700

The price is equal to the arithmetical mean, since the remaining sell limit it is higher than the arithmetical mean (69.50).

→ Price: CHF 69.50

6.12 Algorithmic Trading

The participant must possess effective arrangements and risk controls for algorithmic trading, to ensure that its systems:

- a. are robust and equipped with sufficient capacity to deal with peak volumes of orders and announcements;
- b. are subject to appropriate trading thresholds and upper trading limits;
- c. do not cause or contribute to any disruptions on SDX Exchange;
- d. are effective for preventing violations of Art. 142 and 143 FinMIA; and
- e. are subject to appropriate tests of algorithms and control mechanisms, including the precautions to:
 1. limit the proportion of unexecuted trading orders relative to the number of transactions that can be entered into the system by a participant;
 2. slow down the flow of orders if there is a risk of the capacity of the system being reached; and
 3. limit and enforce the minimum tick size that may be executed on SDX Exchange.

In algorithmic trading, SDX Exchange may make provision for higher fees for:

- a. the placement of orders that are later cancelled;
- b. participants placing a high proportion of cancelled orders;
- c. participants with:
 1. an infrastructure intended to minimise delays in order transfer;
 2. a system that can decide on order initiation, generation, routing or execution; and
 3. a high intraday number of price offers, orders or cancellations.

Details are laid down in the "List of Charges under the Listing and Trading Rules".

6.13 Reference Price Adjustment

SDX Exchange may adjust the reference price in the following cases, in particular:

- a. If there is no trade on SDX Exchange in the order book during trading hours, despite an open order book. SDX Exchange adjusts the reference price after the close of trading based on the most recent bid and ask price before the close of trading. If the previous reference price is lower than the best bid price, the reference price shall be the best bid price. If the previous reference price is higher than the best ask price, the reference price shall be the best ask price. If, one hour before the close of trading, there is no bid price and no ask price in the order book, the reference price shall not be adjusted;
- b. If the trade which resulted in the reference price has been cancelled by SDX Exchange. The reference price shall be adjusted after the close of trading. If there has been no valid on-exchange, on-order-book trade during trading hours, the reference price shall be determined pursuant to Clause 11.1 para. 1 let. a) Trading Rules;
- c. If dividends on a security are paid out in the trading currency. On the ex-date, SDX Exchange shall adjust the reference price by the amount of the dividend prior to the opening of trading;
- d. If the price steps for a security are modified. SDX Exchange shall adjust the reference price prior to the opening of trading if the reference price does not correspond to the newly valid price steps.

Further manual adjustments to the reference price remain reserved.

7 General Provisions

7.1 Market Control

SDX Exchange shall control trading and thereby promote the transparency, efficiency and liquidity of the securities market with the aim of treating investors and participants equally within their peer groups, and of protecting investors.

SDX Exchange may interrupt or restrict trading, delete orders from the order book and declare null and void and cancel completed trades, or demand that participants reverse these trades.

The details are laid down in the "Market Control" Directive.

7.2 Trading Surveillance

The SIX Exchange Regulation Surveillance & Enforcement department monitors trading with regard to its compliance with statutory requirements and the Trading Rules.

In particular, it monitors price-setting and trades in such a way that the exploitation of insider knowledge, price and market manipulations and other violations of the law and the rules can be identified.

Should violations of the law or other improper events be suspected, the trading surveillance unit shall notify FINMA and, where appropriate, the relevant criminal prosecution authorities.

7.3 Pre-trade Transparency

During usual trading hours, SDX Exchange shall publish the latest bid and ask prices for equities and the depth of the trading positions at those prices.

SDX Exchange may publish pre-trade transparency data for trading in securities other than equities. If pre-trade transparency data are published for trading in securities other than equities, SDX Exchange may limit pre-trade transparency if this is necessary to ensure orderly trading. It shall be guided by international standards in such matters.

Details are laid down in the "Trading" Directive.

7.4 Post-trade Transparency

SDX Exchange publishes information on trades on SDX Exchange, specifically the price, volume, and the time of the trades.

Information is published promptly.

Details are laid down in the "Trading" Directive.

7.5 Special Situations

Special situations shall be defined as exceptional situations and emergency situations. SDX Exchange decides at its own discretion whether there is a special situation.

The details are laid down in the "Market Control" Directive.

7.5.1 Extraordinary Situations

In order to ensure proper trading, should an extraordinary situation arise, SDX Exchange may institute all the measures which it deems necessary to maintain fair, efficient and orderly trading.

SDX Exchange may intervene in trading as it considers necessary, in particular:

- a. delay the opening of trading in a security;
- b. restrict or suspend trading in a security;
- c. reject or delete orders/quotes; and
- d. declare trades null and void and cancel them.

The following specific circumstances shall be deemed to be extraordinary situations, namely:

- a. major price volatility or conditions of severe market stress, in particular times of peak volume of orders, or where a trade differs significantly from the market price;
- b. decisions or information which are to be published imminently and which might have a significant influence on the price of a security (price-sensitive facts); or
- c. other situations that might compromise fair, efficient and orderly trading.

The details are laid down in the "Market Control" Directive.

7.5.2 Emergency Situations

Furthermore, in emergency situations SDX Exchange and/or the Regulatory Bodies may suspend decrees in full or in part, including the Trading Rules, and replace them temporarily with new provisions.

SDX Exchange may also temporarily restrict or suspend trading full or in part.

The following specific circumstances shall be deemed to be emergency situations:

- a. failure of the exchange system or SDX Exchange's access infrastructure or parts thereof;
- b. failure of a participant's access system;
- c. failure of the settlement infrastructure;
- d. force majeure; or
- e. other situations that might compromise fair, efficient and orderly trading.

The details are laid down in the "Market Control" Directive.

7.6 Deletion of Orders and Cancellation of Trades

In special situations, SDX Exchange may reject or delete orders, and declare trades null and void and cancel them, at its own discretion or upon application from one of the participants concerned (for details of the cancellation process, please refer to Clause 14.3 of the "Trading" Directive).

If SDX Exchange declares a trade null and void, it may cancel it or instruct the participants concerned to rectify the trade.

The details are laid down in the "Market Control" Directive.

8 Reporting Duty

8.1 Purpose and Scope

Pursuant to Art. 39 FinMIA in conjunction with Art. 37 FinMIO and Art. 51 FinIA in conjunction with Art. 75 Ordinance on Financial Institutions (FinIO, SR 954.11), Art. 2-5 Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (FinMIO-FINMA, SR 958.111) and FINMA Circular 2018/2 "Duty to report securities transactions", participants and other Swiss and foreign securities firms (collectively: "those subject to the duty to report") which are admitted to a trading venue are obliged to submit those reports which are necessary to ensure the transparency of securities trading.

Trades in securities² admitted to trading at a Swiss trading venue or for securities derived from such securities are subject to the duty to report pursuant to Art. 37 FinMIO and Art. 75 FinIO.

FINMA Circular 2018/2 interprets and specifies the relevant definitions, the principles of the duty to report, reportable trades and the principles for how the beneficial owner is to be determined.

As the reporting office of SDX Exchange as referred to by Art. 5 para. 4 FinMIO-FINMA, the Reporting Office receives reports on trades in securities admitted to trading or securities derived from these, and processes said reports.

8.2 Acceptance of Messages

The following section contains information on the **Trade Report and Transaction Report**. Trade Reports ensure post-trade transparency. Transaction Reports provide transparency in securities trading, also for investigating bodies.

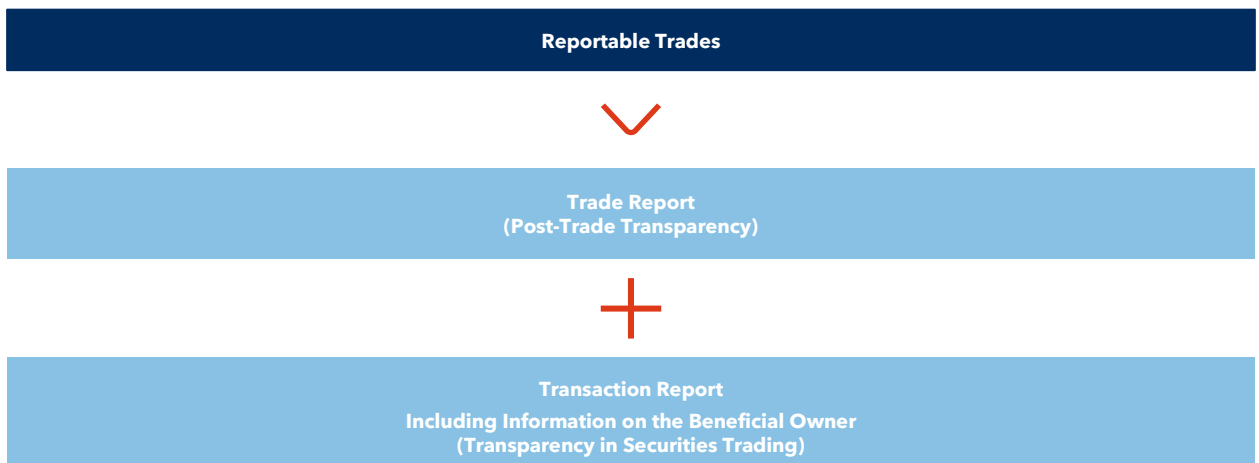


Figure 1 Overview reportable trades

² In the Reporting Rules, the term "securities" also includes derivatives.

8.3 Trade Reports

Those subject to the duty to report are obliged in conjunction with Art. 39 FinMIA to issue the reports necessary for post-trade transparency pursuant to Art. 29 para. 2 FinMIA.

Participants admitted to SDX Exchange must submit Trade Reports for trades pursuant to these Rules if the following requirements are fulfilled on a cumulated basis:

- trades outside of SDX Exchange ("off-exchange trades"); and
- trades in securities admitted for trading at SDX Exchange.

Information from these reports (price, volume, and the time of the trade) will be published to fulfil the SDX Exchange post-trade transparency requirement.

8.3.1 Content

Trade reports must contain the following information as a minimum:

- a. Identification of the party subject to the duty to report;
- b. Transaction type (buy or sell);
- c. Precise identification of the securities concerned (ISIN);
- d. Execution volume (nominal value for bonds, nominal value or number of units for other securities);
- e. Execution price or price obtained on the market excluding commission and fees (incl. statement of currency);
- f. Time of execution (date and time);
- g. Information on whether the trade was a proprietary transaction (trading in own name and for own account) or a client transaction (transaction in own name but for the account of the client);
- h. Identification of the counterparty;
- i. Designation of the trading venue where the securities or derivative were traded, or notification that the transaction was executed outside a trading venue

8.3.2 Reporting Deadlines

Trade Reports for trades during SDX Exchange trading hours must be submitted to the Reporting Office immediately, though equities, rights and options within not more than 1 minute and bonds not more than 15 minutes after the trade has been effected.

If the requirements for delayed publication pursuant to Annex B Reporting Office Rules apply, a delay in publication by the Exchange can be applied for.

Trade Reports for trades outside of SDX Exchange trading hours must be submitted before the start of trading on the trading day following the trade at the latest.

8.3.3 Cancellation

Trade Reports may be cancelled upon application by the parties involved in the Trade Report. In the case of incorrect Trade Reports, those subject to the duty to report are obliged to request cancellation of the Trade Report.

The cancellation must be made by the end of the following trading day at the latest.

Should the Reporting Office cancel a report upon application from those subject to the duty to report, this cancellation will be published.

8.4 Transaction Reports

For reportable trades in Swiss securities admitted for trading at SDX Exchange, those subject to the duty to report must submit a Transaction Report to the Reporting Office. Furthermore, this shall also apply to trades in foreign securities admitted for trading at SDX Exchange:

- provided the trade is conducted at SDX Exchange or
- outside a foreign trading venue recognised by FINMA.

The duty to report pursuant to the paragraph above also applies to reportable trades in securities derived from securities admitted for trading at SDX Exchange.

Every Transmission of Orders for securities admitted to trading at SDX Exchange or for securities derived from securities admitted for trading at SDX Exchange which ultimately results in a trade must be reported as Transaction Report to the Reporting Office by every party in the transaction chain which is subject to the duty to report.

Exemptions from the duty to report pursuant to Art. 39 FinMIA arise from Art. 37 para. 4 FinMIO, FINMA Circular 2018/2 and Annex A Reporting Rules.

The Transaction Report serves to fulfil regulatory requirements of the parties subject to the duty to report and is not published.

8.4.1 Content

Transaction reports in Swiss format must contain the following information as a minimum:

- a. Identification of the party subject to the duty to report;
- b. Transaction type (buy or sell);
- c. Precise identification of the securities in question (in the sense of Art. 2 let. b in conjunction with let. c FinMIA) (attributes such as the ISIN or CFI);
- d. Execution volume (nominal value for bonds, nominal value or number of units for other securities);
- e. Execution price or price obtained on the market excluding commission and fees (incl. statement of currency);
- f. Time of execution or time of order fulfilment in the case of Transmissions of Orders (date and time);
- g. Value date (corresponding to the date on which the securities are transferred and paid for following the trade);
- h. Information on whether the trade was a proprietary transaction (trading in own name and for own account) or a client transaction (transaction in own name but for the account of the client);
- i. Designation of the counterparty or, in the case of Transmissions of Orders: designation of the party to whom the order was transmitted;
- j. Designation of the trading venue where the securities or derivative were traded, or notification that the transaction was executed outside a trading venue;
- k. Information permitting the beneficial owner to be identified, or in the case of Transmissions of Orders: the designation of the party who transmitted the order;
- l. Transaction identification code (trade ID).

8.4.2 Transaction Report Format

The Reporting Office accepts full Transaction Reports which comply with the Swiss format, as described in FINMA Circular 2018/2.

The Reporting Office accepts full Transaction Reports in the European Union format as specified in the technical implementing standards (RTS 22) for Art. 26 of Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No. 648/2012 (MiFIR).

Technical details are governed in the technical specifications of SDX Exchange.

8.4.3 Reporting Deadline

Transaction Reports must be submitted by the close of trading on the trading day following the trade at the latest.

8.4.4 Cancellation

Those subject to the duty to report can delete a Transaction Report by no later than the end of the fifth trading day after submitting the Transaction Report and submit a new Transaction Report to the Reporting Office by the same deadline.

To correct incorrect Transaction Reports, the Transaction Report must be deleted and resubmitted by the party subject to the duty to report.

9 Settlement

Securities trades shall be settled without the involvement of a central counterparty. A trade shall give rise to a contractual relationship exclusively between the participants concerned.

Details are laid down in the "Trading" Directive.

9.1 Atomic Trading and Settlement

Trading on SDX Exchange and the settlement of trades are performed in accordance with the principle of atomic trading and settlement: Orders are only irrevocably matched once the trades have successfully settled because the final combination of orders in an auction, results in a contract subject to condition precedent, which is fulfilled on successful settlement (see Clause 15.2.1 Trading Rules). Thus, only trades with successful settlement on the SDX CSD are considered as legally effective trades on the SDX Exchange. Independent clearing is not necessary and is not part of the process.

Details are laid down in the "Trading" Directive.

9.2 Trades

9.2.1 Contracting Parties

A final consolidation of orders in an auction shall give rise to a contractual relationship between the participants concerned.

9.2.2 Content of Contract

The contract concluded as described in Clause 15.1 Trading Rules must include the following content:

9.2.2.1 General

The contract between the participants involved is concluded subject to condition precedent when the orders are matched in conjunction with the final combination of the auction's orders. The condition precedent is the successful settlement of the orders covered by the contract. The contract therefore only becomes legally valid when settlement occurs (**settlement date**).

Until the final combination of the orders in an auction, it is still technically possible for the participants to dispose of their assets without restriction, even if this could potentially hinder the due fulfilment of the contract. Such disposals by participants are not in bad faith. All participants are aware that auctions may fail on account of insufficient assets. The participants involved are not authorised to demand security measures in accordance with Art. 152 para. 2 CO, and disposing of assets is not deemed preventing the condition from occurring in bad faith in accordance with Art. 156 CO.

All rights and obligations (incl. subscription rights, etc.), as well as all risks attached to the securities sold shall be transferred to the buyer at the settlement date.

9.2.2.2 Equity Securities

Equity securities shall be traded inclusive of the related claims to dividends, capital repayments, subscription rights or other forms of distribution, but exclusive of any outstanding capital that must be paid in ("cum").

As of the ex-date, trading in a security shall take place exclusive of any claims to dividends, capital re-payments, subscription rights or other forms of distribution ("ex").

The ex-date is specified by the issuer. SDX Exchange publishes the ex-date in an appropriate form. It shall offer no warranties and accept no liability in respect of such publication.

9.2.2.3 Bonds

Principle

Bonds are traded as a percentage of their par value. The interest accrued on the par value shall be deemed to be the percentage, calculated between the date on which the last-paid coupon lapsed and the value date. It must be paid by the buyer in addition to the agreed price.

The interest accrued shall be calculated on the basis of the respective bond terms.

Non-performing bonds

Bonds that have either been defaulted on in full, or on whose coupons only a partial distribution has been paid, shall be traded flat, i.e. without accrued interest. The coupons designated in the exchange system must be transferred with the bonds themselves in such cases.

Bonds on which interest is not paid in accordance with the bond terms owing to foreign exchange restrictions, moratoria on transfers or other circumstances, but which have a coupon that may still hold a value, are traded without accrued interest.

These securities shall be designated as bonds that have a current coupon but for which no accrued interest is calculated. SDX Exchange may apply different rules in special cases.

9.2.3 Legal Warranty

The Buyer shall continue to be covered by the entitlement to legal warranty of title as described in Art. 192 et seq. CO. This claim shall become time-barred after ten years.

10 Violations and Sanctions

10.1 Violations

Where the provisions of the Trading Rules have been violated, the Regulatory Bodies may impose sanctions on participants and/or traders. Specifically, sanctions shall be imposed in response to the following actions or omissions:

- a. violations of orders issued by SDX Exchange and/or the Regulatory Bodies;
- b. violations of contractual agreements with SDX Exchange and/or the Regulatory Bodies;
- c. non-compliance with rulings issued by SDX Exchange and/or the Regulatory Bodies;
- d. attempted or actual damage to the exchange system;
- e. attempted or actual manipulation of or modifications to the exchange system, specifically its technical interfaces;
- f. improper use or passing on of Exchange software or data received from the exchange system;
- g. obstructing the auditors in the performance of their duties; and
- h. failure to cooperate in sanction proceedings and failure to observe a sanction order, a sanction decision or an arbitral ruling.

10.2 Sanctions

The following sanctions may be imposed by the Regulatory Bodies:

- a. Against a participant: reprimand, suspension or exclusion; fine and/or contractual penalty of up to CHF 10 million;
- b. Against a trader: reprimand, suspension or withdrawal of registration.

Decisions on the imposition of sanctions shall take into account the severity of the violation, the degree of fault, and any previous sanctions imposed on the participant or trader.

The sanctions imposed on participants/traders, as well as the underlying violations, may be disclosed to the public and other participants.