

[non-binding translation]

Trading Directive of the BX Swiss AG

1. Purpose and scope

- 1.1. This directive is based on the Trading Rules of the BX Swiss AG (hereinafter “BX”) and contains implementing provisions.
- 1.2. The trading parameters are defined according to trading model and product groups in the appendix.

2. Trading day and trading phases

- 2.1. The trading calendar is determined by the BX and published on the BX website.
- 2.2. Trading phases and trading hours are determined according to trading model or product group.
- 2.3. A trading day consists of the following trading phases:
 - a) Pre-trading phase: continuous order entry without matching.
 - b) Opening of the market: the market is opened with the opening procedure provided in the trading model.
 - c) Continuous trading: following the opening of the market, the continuous trading begins. Orders are continuously matched (matching).
 - d) Close of trading: the market is closed with the closing procedure provided in the trading model. After the close of trading, the next trading day begins.
 - e) Post-trading phase: order changes, deletions and order entries of good-till-cancelled orders (GTC) and good-till-date orders (GTD) are possible.
 - f) Closed: only limited activities are permitted, such as system queries, deletion of orders or corporate actions. For certain corporate actions, for example share splits, open orders are deleted.
 - g) Trading suspension: trading may be suspended for regulatory or technical reasons.

3. Trading suspensions and trading halts

- 3.1. Possible trading suspensions (circuit breakers) and trading halts are determined according to trading model or product group.

4. Price steps and round lots

- 4.1. Price steps (tick size and price step) and smallest tradable quantity (round lot) are determined according to trading model or product group.

5. Orders and quotes

- 5.1. Pursuant to clause 14.1 of the Trading Rules, an order is a binding offer to buy or sell a certain number of an instrument at an unlimited or limited price. The BX supports two types of orders:
 - a) limit order (LO): order to be executed at the specified price limits or better;
 - b) market order (MO): unlimited order to be executed at the next best price on the market.

- 5.2. The maximum validity period of an order is determined according to trading model or product group. On expiry, the orders are deleted. The BX supports the following order types, although the BX may restrict or expand order types according to trading model, product group or order amount:
- a) good for day: valid for the trading day. The order remains in the order book until the end of the trading day.
 - b) good till date/time: the order expires at the specified time and date and remains in the order book until then, unless it is executed.
 - c) fill or kill (FOK): immediate, complete execution of a market or limit order. If the order is not fully executed, it will be deleted automatically. FOK orders are not displayed in the order book. A FOK order can only be entered during continuous trading and without validity period. After the entry, it cannot be changed.
 - d) immediate or cancel (IOC): immediate execution of a market or limit order. The parts of an IOC which were not executed are deleted without being recorded in the order book. An IOC can only be entered during continuous trading and without validity period. After the entry, it cannot be changed.
- 5.3. An order can be executed in multiple other orders at different prices (partial executions).
- 5.4. The quote (Q) is the simultaneous entry of a limited buy and sell price by a Market Maker. Depending on the trading model or product group, the quote can be a binding or non-binding offer.
- 5.5. The tradable quote (TQ) is a non-binding simultaneous entry of a limited buy and sell price, which also serve as a guideline for determining the quote boundaries. Tradable quotes have a fixed validity period, which can be defined differently according to product group.
- 6. Trading of shares, other equity securities and fund shares**
- 6.1. Shares, other equity securities and fund shares are traded per unit.
 - 6.2. Distributions and other associated rights and obligations are handled in accordance with the provisions for clearing and settlement and the customary business practices.
 - 6.3. In the event of an immediate suspension or cancellation of the trading of a fund as a result of the suspension of the redemption or issuance of shares on the part of the investment fund company, one of the parties may request to reverse the transaction. The market control takes the final decision on any reverse processing. The reverse processing must be possible on the same clearing day and is subject to a fee.
- 7. Trading of subscription rights**
- 7.1. In the event of capital changes with subscription right, the subscription rights can be traded separately as from the ex-day. Subscription rights are tradable for the last time on the trading day before closing of the subscription period.
- 8. Trading of bonds**
- 8.1. Bonds are traded in percentages of the nominal value. Trading per unit in special situations remains reserved.
 - 8.2. Accrued interest, coupons and special situations are handled in accordance with the provisions for clearing and settlement and the customary business practices.

- 8.3. The official exchange rates according to the Federal Tax Administration [FTA] are applied to foreign currency bonds, regardless of whether the payment of principal and interest is made at the daily rate or at an exchange rate printed on the securities and listed in the prospectus. The applicable exchange rates are announced daily to the participants on the website.

9. Trading of derivatives

- 9.1. Derivatives are traded per unit or in percentages of the nominal value.
- 9.2. Accrued interest, coupons and special situations are handled in accordance with the provisions for clearing and settlement and the customary business practices.
- 9.3. Derivatives are tradable for the last time on the expiry date.
- 9.4. Derivatives which stipulate an expiry price are traded up to the corresponding expiry date at the latest.

10. Trading model BX L1 (NGM)

- 10.1. L1 is an order book crossing trading model with the option to configure a quote validation or an order protection mode for individual instruments. Orders are continuously recorded in the order book and matched according to price-internal-time priority (matching).
- 10.2. Trading hours are determined according to segment and product group.
- 10.3. The following order types are accepted in the trading model BX L1:
- a) limit order (LO)
 - b) market order (MO)
 - c) immediate or cancel (IOC)
 - d) fill or kill (FOK)
 - e) quote (Q), via a separate interface
 - f) Market Maker quote (MMQ), for a single Designated Market Maker per instrument, via a separate interface.
- 10.4. Market maker quotes differ from quotes in that they are submitted as such and are generally considered to be passive while matching orders.
- 10.5. A quote validation can be provided for a single Market Maker per instrument. If an order can be matched with a Market Maker quote during an open market and activated quote validation, the order is placed in a queue. Deleted or suspended orders are immediately removed from the queue. If a change to the order causes a priority change, the changed order is placed at the end of the queue. As soon as an order is placed in an empty queue, the Market Maker is immediately sent a quote request, whereby the Market Maker does not receive any information about the order (price, type, quantity). The Market Maker must respond to the quote request within a scheduled period of time, otherwise the quote will be deleted.
- Upon receipt of a quote with a changed price (quote update), the new price is executed, otherwise all orders are executed, and the queue is emptied. The quote update is executed against the order book first and then against the queue.
- 10.6. During continuous trading, orders at the same or better price are automatically matched. Open orders are recorded in the order book. Orders are processed with the following priority (in terms of priority, quotes are treated as two independent orders):
- a) price
 - b) internal order¹

¹Which means that orders from the same Trading Participant have priority over matching orders from different Trading Participants.

- c) time.
- 10.7. During auctions, market orders are given a higher priority than limit orders. Buy orders with a higher price and sell orders with a lower price have a higher priority. At the same price, internal orders (orders from the same Trading Participant) have a higher priority. Finally, orders with an older timestamp have a higher priority. The time priority is updated as follows:
 - a) new order: time priority assigned;
 - b) changed order: if the price was changed or the quantity issued was increased, the time priority will be changed, otherwise unchanged;
 - c) refill of a reserve order: treated as a changed order, which means if the quantity shown is increased, the priority will be changed, otherwise unchanged.
 - d) When matching orders of the same Trading Participant in a reserve order, the hidden quantity has been reduced previously, with a positive influence on the time priority, because the declared quantity does not have to be filled again.
- 10.8. In an auction, the orders are matched according to the following priority:
 - a) price
 - b) time.
- 10.9. All instruments can be traded with price steps of three decimal places. The price steps and the round lots are regulated according to product group in the appendix. If the tick size changes, all orders and quotes are deleted.
- 10.10. At the end of an auction (opening auction, closing auction, circuit breaker auction or order protection auction), an equilibrium price is calculated in accordance with the principle of highest executable volume. If there is more than one price or an interval of prices, the price is determined according to the following rule:
 - a) for a surplus on the sell-side: the lowest price of the interval;
 - b) for a surplus on the buy-side: the highest price of the interval;
 - c) otherwise the mean price rounded up.

If the order protection mode is activated, the equilibrium price will always be between the Market Maker buy and sell price.

The opening price, the closing price (for the product groups with a closing auction) and the new reference price for a circuit breaker auction are determined with the equilibrium price. During the auction, the equilibrium price can be displayed with accumulated buy and sell offers.
- 10.11. If the order protection mode is activated for an instrument, trades are only possible if a two-sided quote from the Market Maker exists. If it does not exist, trading is suspended, and an order protection auction is triggered. An order protection auction runs analogously to an opening auction. The order protection auction ends with an uncross as soon as the Market Maker enters a double-sided quote. However, no uncross occurs if the order protection mode is deactivated, the trading phase changes from open trading and enters another trading phase, or if a knock-out, buyback or distribution sub-status occurs.
- 10.12. The reference price is used as a comparative value, in particular for the calculation of the opening price or in the event of trade suspensions (circuit breakers).
- 10.13. In the pre-trading phase (pre-open)
 - a) market statistics are reset;
 - b) orders from Trading Participants are accepted;
 - c) a theoretical opening price (equilibrium price) can be calculated continuously and displayed in an instrument as orientation;
 - d) a delayed opening can be provided for in an instrument, in the event of a deviation of the theoretical opening price from the reference price, provided for according to product group;

- e) reported off-trades are published.
- 10.14. Upon opening of the market (opening, opening auction)
- a) the order books are opened in random order;
 - b) an auction (opening auction) is carried out for orders in the order book according to the principle of highest executable volume;
 - c) the opening price is the price at which the highest executable order volume and the lowest surplus exist.
- 10.15. During continuous trading (open):
- a) Trading Participants enter orders in the order book. If orders are changed, the existing order is deleted, and the changed order is treated as a new order, which means it is given a new timestamp and rearranged;
 - b) orders are executed in one or more parts at the same or at different prices based on the principle of price-internal order-time priority;
 - c) trading of an instrument may be halted or suspended;
 - d) trading of a product group or the entire market may be suspended;
 - e) trading of an instrument may be suspended in the event of a price deviation from the reference price, provided for according to product group and price (circuit breakers);
 - f) for orders in the order book, trading is resumed after trade suspensions with an auction according to the principle of highest executable volume;
 - g) reported off-trades are published;
 - h) the reference price is updated by the last paid price.
- 10.16. At close of trading (closing, closing auction)
- a) a closing auction may be provided for according to product group;
 - b) continuous trading is discontinued;
 - c) the BX exchange system is set in the post-trading phase.
- 10.17. In the post-trading phase (post-open):
- a) order entry is possible;
 - b) order changes and deletions are possible;
 - c) no trades occur;
 - d) expiring orders are deleted.
- 10.18. During closed market (closed):
- a) market statistics are generated;
 - b) corporate actions are executed.
- 10.19. Trading curbs (circuit breakers) automatically suspend trading of an instrument when a certain price limit is reached or exceeded. The price limit is set as a percentage according to product group. In the event of a circuit breaker, a circuit breaker auction begins. Fill-or-kill orders exceeding a price limit are rejected without triggering a circuit breaker. There are two types of circuit breakers:
- a) static circuit breaker: the reference price is the price of the last call auction. If there is no opening price, the closing price of the previous day is used. If there is no previous closing price, the first price traded is used. If there is no trade at the circuit breaker auction, the last paid price of the day is used as the new reference price.
 - b) dynamic circuit breaker: the reference price is the last paid price of the day. If there is no trade on that day yet, the reference price is not determined. The new reference price is the price after the completion of the circuit breaker auction. If the circuit breaker auction does not result in a trade, the reference price is not changed.

- 10.20. Pre-trade control is a provision for the automatic rejection of orders (except Market Maker quotes), when the price, quantity or value (price x quantity) exceeds a certain value. The price limit is calculated as a percentage above or below the applicable reference price. The quantity or value limit is a fixed value. Price and value limits can be set according to instrument or product group.
- 10.21. Each participant connection (account) has a predetermined data throughput limit which limits the number of messages per second (time interval). If the throughput limit is exceeded, the surplus messages are placed in the queue for the rest of the time interval. At the beginning of a new time interval, the counter is reset and processing of the messages is continued.

11. Trading segments and product groups

- 11.1. The BX assigns the instruments to the individual segments and product groups.
- 11.2. The BX defines the details to the individual segments and product groups in the appendixes to this directive. The appendixes are integrated parts of this directive.
- 11.3. In the admission proceedings, the BX determines with which trading model an instrument is traded and in which segment and product group it is included. The assignment may be changed at any time at one's own discretion or upon request of the issuer or Market Maker.
- 11.4. The BX runs the following trading segments and product groups:

Shares

- A.** Segment Swisscaps, product group "companies with primary listing"
- B.** Segment Swisscaps, product group "double-listed companies"
- C.** Segment Swisscaps, separate trading line
- D.** Segment Swisscaps, trading of subscription rights
- E.** Segment Worldcaps

Funds/ETFs

- F.** Segment Swissfunds
- G.** Segment Worldfunds

Structured Products

- H.** Segment Actively Managed Certificates

12. Fees

- 12.1. The BX regulates the fees incurred for trading on its platform in the List of Fees of the BX Swiss AG.

13. Final provisions and entry into force

- 13.1. This Trading Directive was adopted by the regulatory board and enters into force on 20 July 2018.

Appendix A – companies with primary listing (segment Swisscaps)

products	shares listed on the BX only	
trading model	BX L1	
market making	BX does not organise market making	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	market price (CHF)	price steps (CHF)
	0.01 to 9.95	0.01
	10.00 to 99.95	0.05
	100.00 to 249.90	0.10
	250.00 to 499.75	0.25
	500.00 to 999.50	0.50
	1,000.00 to 4,999.00	1.00
	5,000.00 and above	5.00
round lot	1 unit	
trading suspension (circuit breakers)	only for instruments with a market value of > 10.00 CHF a. delayed opening 15 minutes, in case of a deviation theoretical opening price to reference price 10% b. “stop trading” 15 minutes for price fluctuations > 10%	
trading halt	a. at the discretion of the BX b. upon the request of the issuer	
obligation to trade on the exchange	obligation for Trading Participants to trade on the exchange exception: individual orders > CHF 250,000.00	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	

Appendix B – dual-listed companies (segment Swisscaps)

products	BX and SIX dual-listed shares	
trading model	BX L1	
market making	Designated Market Maker (DMM), according to best effort (without obligation by the BX)	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	0.001	
round lot	1 unit, DMM may make exceptions according to instrument	
trading suspension	a. at the discretion of the BX market control	
	b. upon expiry of the validity of a tradable quote	
	c. for tradable quote with zero value on both sides	
trading halt	a. at the discretion of the BX	
	b. upon the request of the DMM, in particular in the event of	
	<ul style="list-style-type: none"> ▪ trading halt at the domestic stock exchange (SIX); ▪ ambiguities regarding capital measures; ▪ irregularities in the trading on the domestic stock exchange (SIX), which could affect an orderly trading on the BX 	
obligation to trade on the exchange	no	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	

Appendix C – separate trading line (segment Swisscaps)

products	separate trading line for <ul style="list-style-type: none"> - buyback of own equity securities - public takeover offer - public exchange offer An additional ISIN is required for a separate trading line.
trading model	BX L1
market making	-
trading phases	same as companies with primary listing
order types	same as companies with primary listing <ul style="list-style-type: none"> - For a buyback, only the participant responsible for the buyback is permitted to enter buy orders on behalf of the company. Pursuant to the rules of the Swiss Takeover Board (TOB), the offered bid price must not deviate more than 5% from the bid price on the first line. - For a public takeover offer, every participant is permitted to enter buy and sell orders. Prohibited are buy orders on behalf of the provider with a bid price above the public takeover offer price, and sell orders on behalf of the provider. - For a public exchange offer, every participant is permitted to enter buy and sell orders. Prohibited are buy orders on behalf of the provider with a bid price above the corresponding equivalent value of the securities offered for exchange, and sell orders on behalf of the provider.
price steps / tick size	according to companies with primary listing
round lot	according to companies with primary listing
trading suspension	at the discretion of the BX
trading halt	at the discretion of the BX
obligation to trade on the exchange	All transactions in the course of the buyback program must be processed via the second trading line.
reporting deadlines	according to the Rules regulations for the reporting office of BX Swiss AG
CCP	no CCP, the processing is done manually
pre-trading transparency	order book depth 5
special provisions	The market control monitors the trading in the separate trading line. If the order limits are violated, a mistrade is ruled even without the consent of the parties concerned until the opening of the market on the next trading day at the latest. For buyback offers, the special provisions of the Swiss Takeover Board (TOB) should be noted.

Appendix D – trading of subscription rights (segment Swisscaps)

products	subscription rights to shares listed on the BX An additional ISIN is required for the trading of subscription rights.
trading model	BX L1
market making	no market making
trading phases	same as BX Caps
order types	same as BX Caps
price steps / tick size	according to BX Caps
round lot	according to BX Caps
trading suspension	at the discretion of the BX
trading halt	at the discretion of the BX
obligation to trade on the exchange	no
reporting deadlines	none
CCP	no CCP, the settlement is done manually
pre-trading transparency	order book depth 5
special provisions	none

Appendix E – segment Worldcaps

products	shares not listed on the BX	
trading model	BX L1	
market making	Designated Market Maker	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	0.001	
round lot	1 unit, DMM may make exceptions according to instrument	
trading suspension	a. at the discretion of the BX market control b. upon expiry of the validity of a tradable quote c. for tradable quote with zero value on both sides	
trading halt	a. at the discretion of the BX b. upon the request of the DMM, in particular in the event of <ul style="list-style-type: none"> ▪ trading halt at the domestic stock exchange; ▪ ambiguities regarding capital measures; ▪ irregularities in the trading on the domestic stock exchange, which could affect an orderly trading on the BX 	
obligation to trade on the exchange	no	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	

Appendix F – segment Swissfunds

products	collective investment schemes listed on the BX	
trading model	BX L1	
market making	Market Maker (MM)	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	0.001	
round lot	1 unit, MM may make exceptions according to instrument	
trading suspension	a. at the discretion of the BX market control b. upon expiry of the validity of a tradable quote c. for tradable quote with zero value on both sides	
trading halt	a. at the discretion of the BX b. upon the request of the MM, in particular in the event of <ul style="list-style-type: none"> trading halt at the domestic stock exchange; ambiguities regarding capital measures; irregularities in the trading on the domestic stock exchange, which could affect an orderly trading on the BX 	
obligation to trade on the exchange	no	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	

Appendix G – segment Worldfunds

products	collective investment schemes not listed on the BX	
trading model	BX L1	
market making	Designated Market Maker	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	0.001	
round lot	1 unit, DMM may make exceptions according to instrument	
trading suspension	a. at the discretion of the BX market control b. upon expiry of the validity of a tradable quote c. for tradable quote with zero value on both sides	
trading halt	a. at the discretion of the BX b. upon the request of the DMM, in particular in the event of <ul style="list-style-type: none"> trading halt at the domestic stock exchange; ambiguities regarding capital measures; irregularities in the trading on the domestic stock exchange, which could affect an orderly trading on the BX 	
obligation to trade on the exchange	no	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	

Appendix H – segment Actively Managed Certificates (AMC)

products	BX listed Tracker Certificates (EUSIPA category 1300) with discretionary management of the underlyings	
trading model	BX L1	
market making	Designated Market Maker	
trading hours	09:00 – 17:30	
trading phases	08:00	pre-trading phase
	09:00	opening of the market with auction
	09:00 – 17:30	continuous trading
	17:30	post-trading phase
	18:00	close of trading
order entry	08:00 – 17:30	
order types	<u>order type</u>	<u>validity period</u>
	limit order (LO)	maximum of 360 days
	market order (MO)	-
	immediate or cancel (IOC)	time of entry
	fill or kill (FOK)	time of entry
price steps / tick size	0.001	
round lot	1 unit, DMM may make exceptions according to instrument	
trading suspension	d. at the discretion of the BX market control e. upon expiry of the validity of a tradable quote f. for tradable quote with zero value on both sides	
trading halt	c. at the discretion of the BX d. upon the request of the DMM, in particular in the event of <ul style="list-style-type: none"> trading halt at the domestic stock exchange; ambiguities regarding capital measures; irregularities in the trading on the domestic stock exchange, which could affect an orderly trading on the BX 	
obligation to trade on the exchange	no	
reporting deadlines	pursuant to the Rules of the Reporting Office of the BX Swiss AG	
CCP	no CCP	
pre-trading transparency	order book depth 5	
special provisions	none	