AMENDMENTS TO SGX-ST RULES

<u>Sample</u>: Rule insertions <u>Sample</u>: Rule deletions

Rule Amendments

Definitions

"Contract Specifications" means the commercial and technical terms of a Marginable Futures Contract, including the contract size, contract month, underlying security, Last Trading Day and settlement basis. Unless otherwise stated, Contract Specifications are not subject to the rule amendment procedures specified under the SFA.

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Chapter 8 - Trading

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8.2 Trading Hours

8.2.1

The trading hours and the application of the market phases are as published by SGX-ST. SGX-ST may vary the trading hours and application of the market phases.

Refer to Practice Note 8.2.1.

8.2.2

The market phases are as follows:—

(1) Pre-Open/Pre-Close

This phase allows order entry, <u>order modification</u>, <u>reduction in order size</u> and withdrawal of orders but no matching of orders.

(2) Non-Cancel

No order entry and amendment are allowed in this phase. All existing orders are matched at a single price according to the algorithm set by SGX-ST. All unmatched orders, except at the close of trading, are carried over to the next phase. All unmatched orders following the non-cancel phase at the close of trading will lapse.

(3) Trading

This phase allows order entry, <u>order modification</u>, <u>reduction in order size</u> and withdrawal of orders. All orders are matched in accordance with price priority, subject to Rule 8.10A, followed by time priority.

(4) Adjust

This phase allows order entry, <u>order modification</u>, <u>reduction in order size</u> and withdrawal of orders. At the end of the phase, orders will be matched at a single price based on the algorithm set by SGX-ST. All unmatched orders will be carried over to the next phase.

Refer to Practice Note 8.2.2.

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8.10 Suspension and Restriction of Trading

8.10.1

SGX-ST may suspend or restrict trading in any or all listed or quoted securities or Futures Contracts. It may do so for 1 or more markets or 1 or more trading sessions or any part of a trading session. It may do so in any of the following circumstances:—

- in SGX-ST's opinion, the market is not orderly, informed or fair or circumstances are about to occur that may result in there not being an orderly, informed or fair market;
- (2) SGX-ST releases an announcement in relation to an Issuer which, in SGX-ST's opinion, is market sensitive;
- (3) an Issuer requests, and SGX-ST agrees to, the suspension;
- (4) access to the Trading System is generally restricted;
- (4A) where Rule 8.10A applies;
- (5) any of the circumstances in Rule 1303 of the SGX-ST Listing Manual apply;
- (6) functions of SGX-ST are, or are threatened to be, severely and adversely affected by a physical emergency such as fire, terrorist activities, power failures, communication or transportation breakdowns, or computer malfunctions; or
- (7) in SGX-ST's opinion, it is in the public interest.

Refer to Practice Note 8.10.1.

8.10.1A

SGX-ST may restrict trading by such means as it considers appropriate, including placing the market into an Adjust Phase.

8.10.2

A suspension and a trading restriction may be lifted by SGX-ST at any time.

8.10.3

Securities or Futures Contracts which have been suspended from trading cease to be traded on the Trading System. Except with SGX-ST's approval, a Trading Member must not execute any transactions in a suspended security or Futures Contract.

Refer to Practice Note 8.10.3.

8.10.4

All uUnmatched orders in a security or Futures Contract in the Trading System may lapse in the event of a suspension of that security or Futures Contract, as determined by SGX-ST.

Refer to Practice Note 8.10.1

8.10.5

Where SGX-ST has suspended <u>or restricted</u> trading in all listed or quoted securities or Futures Contract in 1 or more markets, SGX-ST may extend a trading session for the market when trading recommences.

8.10.6

Securities or Futures Contracts subject to suspension will be placed in Adjust Phase for a minimum of 15 minutes before trading recommences.

Refer to Practice Note 8.2.1

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Chapter 14 - Supervisory Rules

14.13 Emergency Powers

14.13.1

Where SGX-ST deems it necessary or desirable for ensuring a fair and orderly market or for ensuring a safe and efficient clearing facility, or for ensuring the integrity of the market or for proper management of systemic risk in the market, SGX-ST may, in relation to 1 or more Trading Members:

- (1) require that a portion of the positions in respect of Marginable Futures Contract carried in any account(s) on the books of such Trading Member be transferred to the books of 1 or more Trading Members;
- (2) require such Trading Member to liquidate any of the positions carried in any account(s) on its books;
- (3) modify any term in any Contract Specifications, which may include bringing forward the Last Trading Day, or modifying the settlement obligations as set out in Rule 9.4.1;
- (4) require such Trading Member to close any accounts;
- (5) <u>impose such additional capital requirements on such Trading Member as SGX-ST deems</u> necessary or desirable;
- (6) <u>impose such limits and/or conditions to control the activities of such Trading Member as SGX-ST deems necessary or desirable; and</u>
- (7) take such action or require such Trading Member to take such action as SGX-ST deems

necessary or desirable.

14.13.2

SGX-ST shall, as soon as practicable, notify the Authority of any action taken by SGX-ST pursuant to Rule 14.13.

14.13.3

Nothing in this rule shall limit the authority of SGX-ST, the Board or any other committee to act in an emergency situation in accordance with these Rules.

14.13.4

Without prejudice to the generality of Chapter 2, SGX-ST shall not be liable to any Trading Member or any other person in respect of any damage, loss, cost or expense of whatsoever nature (whether direct, indirect, special or consequential, including without limitation any loss of business, revenue, goodwill, bargain or profit), suffered or incurred by such Trading Member or third party, arising out of or in connection with the exercise or non-exercise by SGX-ST of its powers under Rule 14.13 or the determination by SGX-ST of the satisfaction or non-satisfaction of any condition for the exercise of such powers.

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Chapter 19 – Marginable Futures Contract

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19.14 Emergency Powers

19.14.1

Where SGX ST deems it necessary or desirable for ensuring a fair, orderly and transparent market or the integrity of the market, or for proper management of systemic risk in the market, SGX-ST may, in relation to one or more Trading Members:—

- (1) require such Trading Member to take action to offset any of the positions carried in any account(s) on its books;
- (2) modify any term in any Contract Specifications, which may include bringing forward the Last Trading Day, or modifying the settlement obligations as set out in Rule 9.4.1;
- (3) require such Trading Member to close any accounts;
- (4) impose such additional capital requirements on such Trading Member as SGX-ST deems necessary or desirable;
- (5) impose such limits and/or conditions to control the trading activities of such Trading Member as SGX-ST deems necessary or desirable; and
- (6) take such action or require the Trading Member to take such action as SGX-ST deems necessary or desirable.

19.14.2

SGX-ST shall, as soon as practicable, notify the Authority of any action taken by SGX-ST pursuant to Rule 19.14.1.

19.14.3

Without prejudice to the generality of Chapter 2, SGX-ST shall not be liable to any Trading Member or any other person in respect of any damage, loss, cost or expense of whatsoever nature (whether direct, indirect, special or consequential, including without limitation any loss of business, revenue, goodwill, bargain or profit), suffered or incurred by such Trading Member or other person, arising out of or in connection with the exercise or non-exercise by SGX-ST of its powers under Rule 19.14.1 or the determination by SGX-ST of the satisfaction or non-satisfaction of any condition for the exercise of such powers.

AMENDMENTS TO PRACTICE NOTE 8.2.1

<u>Sample</u>: Rule insertions Sample: Rule deletions

Practice Note 8.2.1 — Application of Market Phases and Algorithm

Issue Date	Cross Reference	Enquiries
<u>17 February 2012</u> , amended on <u>15 April</u> <u>2013</u> , <u>24 February 2014</u> and <u>16 September</u> <u>2016</u> .	Rules <u>8.2.1</u> – <u>8.2.3</u>	Please contact Securities Market Control:—
		Email: securities.mc@sgx.com

1. Introduction

- 1.1 This Practice Note explains the application of the various market phases and the algorithm used by SGX-ST in computing the single price for the Opening Routine, Closing Routine and Adjust Phase.
- 1.2 Rule 8.2.1 says the trading hours and the application of the market phases are as published by SGX-ST.
- 1.3 Rule 8.2.12 says SGX-ST may vary the trading hours and application of the market phases.
- 1.4 Rule 8.2.23 sets out the various market phases.

2. Application of Market Phases

2.1 Summary of Market Phases

(1) Normal Day Trading

08.	30 08.58	3-59* og).00 17.	00 17.0	4-05** 17.	.06
	Pre-Open	Non-Cancel	Trading	Pre-Close	Non-Cancel	
	Openin	g Routine		Closing	g Routine	

- Please see Point 2.2(2) and (3).
- ** Please see Point 2.5(3) and (4)

(2) Half-Day Trading

08.	30 08.58	3-59* 09	0.00 12.	30 12.3	4 ⁻ 35** 12.	36
	Pre-Open	Non-Cancel	Trading	Pre-Close	Non-Cancel	
	Openin	g Routine		Closing	g Routine	

- * Please see Point 2.2(2) and (3).
- ** Please see Point 2.5(3) and (4)

2.2 Opening Routine

- (1) The Opening Routine is a 30-minute session before normal trading starts at 09:00 hours. It comprises the Pre-Open Phase and the Non-Cancel Phase.
- (2) Pre-Open Phase (08:30 to 08:58–59 hours)
 - (a) Orders can be entered, reduced in quantity modified or withdrawn in the ready and unit share markets.
 - (b) The bid (offer) can be higher (lower) than the offer (bid).
 - (c) No matching of orders.
 - (d) This phase will end randomly at any time from 08:58 to 08:59 hours.
- (3) Non-Cancel Phase (08:58–59 to 09:00 hours)
 - (a) This phase will begin immediately after the Pre-Open Phase ends, which may be at any time from 08:58 to 08:59 hours.
 - (aa) No input, amendment and withdrawal of orders.
 - (b) Orders that can be matched are matched at a single price computed based on an algorithm set by SGX-ST. The computed price will be the opening price for the day.
 - (c) Unmatched orders are carried forward into the morning trading session.

2.3 Trading Phase

- (1) The Trading Phase will be from 09:00 to 17:00 hours.
- (2) The Trading Phase allows order entry, reduction in order modification and withdrawal of orders. Orders are matched in the order of price priority followed by time priority.
- (3) All unmatched orders after the Trading Phase are carried forward to the Closing Routine.

2.4 Adjust Phases

(1) An Adjust Phase operates upon the lifting of a suspension of a security or Futures Contract <u>pursuant to Rule 8.10.6 and may also be applied pursuant to Rule 8.10.1A</u>. A trading halt operates in the same way as an Adjust Phase.

(2) Upon Lifting of a Suspension

- (a) The Adjust Phase sets in for 15 minutes. A longer time can be specified.
- (b) Orders can be entered, <u>modified</u> reduced in quantity or withdrawn for the ready and unit share markets.
- (c) The bid (offer) can be higher (lower) than the offer (bid).
- (d) Orders that can be matched will be matched at the end of the Adjust Phase at a single price computed based on an algorithm set by SGX-ST before normal trading resumes. Unmatched orders at the end of the Adjust Phase are carried forward into the phase of the market applicable when the Adjust Phase ends.
- (2) (e) However, this the behaviour in paragraph 2.4(1)(d) does not apply in the following scenarios:
 - (a) <u>wW</u>hen the end of <u>the</u> Adjust Phase coincides with the Opening Routine or Closing Routine. In these circumstances, orders entered are carried forward into and matched accordingly in the respective Opening Routine or Closing Routine.
 - (b) When SGX-ST specifies that the Adjust Phase is to be followed immediately by the Non-Cancel Phase. In these circumstances, the Non-Cancel Phase will begin simultaneously with the end of the Adjust Phase, which may be at any time within a one minute window. Orders are carried forward into the Non-Cancel Phase. Orders that can be matched will be matched at a single price computed based on an algorithm set by SGX-ST before normal trading resumes. Unmatched orders at the end of the Non-Cancel Phase are carried forward into the phase of the market applicable when the Non-Cancel Phase ends.

For illustrative purposes only:

10	:00	10:15	-10:16	10:17
Suspension	Adjust		Non-Cancel	Trading

SGX-ST specifies the Adjust Phase is to be followed immediately by the Non-Cancel Phase and further specifies that the Non-Cancel Phase will begin from 10:15h to 10:16h. In this case, the Adjust Phase will end simultaneously with the beginning of the Non-Cancel Phase at any time from 10:15h to 10:16h. Normal trading will begin at 10:17h.

(c) When SGX-ST closes the market or suspends trading pursuant to Rule 8.10.1, at the end of the Adjust Phase.

(3) During a Trading Halt

(a) Existing orders remain valid.

- (b) Orders can be entered, reduced in quantity or withdrawn in the ready and unit share markets.
- (c) The bid (offer) can be higher (lower) than the offer (bid).
- (d) Orders that can be matched will be matched at the end of the trading halt at a single price computed based on an algorithm set by SGX-ST.
- (e) Unmatched orders are carried forward into the phase applicable to the market at the time of lifting of trading halt.
- (f) If the trading halt is not lifted by the end of a Market Day, all unmatched orders lapse.

2.5 **Closing Routine**

- (1) The Closing Routine is a 6-minute session after trading stops at 17:00 hours for normal day trading, or 12:30 hours for half-day trading. It comprises the Pre-Close Phase and the Non-Cancel Phase.
- (2) All unmatched orders are carried forward to the Closing Routine at 17:00 hours (for normal day trading) or 12:30 hours (for half-day trading).
- (3) Pre-Close Phase (17:00 to 17:04–05 hours/12:30 to 12:34–35 hours)
 - (a) Orders can be entered, reduced in quantity modified or withdrawn in the ready and unit share markets.
 - (b) The bid (offer) can be higher (lower) than the offer (bid).
 - (c) No matching of orders.
 - (d) This phase will end randomly at any time from 17:04 to 17:05 hours (for normal day trading) or 12:34 to 12:35 (for half-day trading).
- (4) Non-Cancel Phase (17:04–05 to 17:06 hours/12:34–35 to 12:36 hours)
 - (a) This phase will begin immediately after the Pre-Close Phase ends, which may be at any time from 17:04 to 17:05 hours (for normal day trading) or 12:34 to 12:35 (for half-day trading).
 - (aa) No input, amendment and withdrawal of orders.
 - (b) Orders that can be matched are matched at a single price computed based on an algorithm set by SGX-ST. Unless otherwise specified, the computed price will be the closing price for the day.
 - (c) All unmatched orders lapse.
- (5) This routine is designed to reduce the risk of manipulating closing prices with a single transaction at an unusually high or low price, just before the trading session ends.

- 3. Algorithm Used by SGX-ST to Compute the Single Price at Which Orders at the End of the Opening Routine, Closing Routine and Adjust Phase are Matched
- 3.1 The methodology for computing the single price at which orders at the end of the Opening Routine, Closing Routine and Adjust Phase are matched ("Equilibrium Price") is as follows¹: -
- (1) The Equilibrium Price is the price that has the largest tradable volume and the lowest imbalance. "Imbalance" refers to the net difference between the cumulative bid volume and cumulative ask volume. See Example 1.

Example 1

Bid Volume	Price	Ask Volume	Cumulative Bid Volume (a)	Cumulative Ask Volume (b)	Tradable Volume	Imbalance (a)-(b)	Pressure
0	3.750	10	340	10	10	330	Buy
0	3.760	20	340	30	30	310	Buy
50	3.770	50	340	80	80	260	Buy
100	3.780	80	290	160	160	130	Buy
70	3.790	30	190	190	190	0	Nil
30	3.800	40	120	230	120	70	Sell
90	3.810	20	90	250	90	160	Sell

In this example, the Equilibrium Price is \$3.790 where the tradable volume is the largest and the imbalance is the lowest. If the highest tradable volume occurs at more than one price the algorithm will then consider imbalance, see sub-paragraph (2).

(2) If the highest tradable volume occurs at more than one price the Equilibrium Price is the price with the lowest imbalance. See Example 2.

Example 2

Bid Volume	Price	Ask Volume	Cumulative Bid Volume (a)	Cumulative Ask Volume (b)	Tradable Volume	Imbalance (a)-(b)	Pressure
0	3.750	10	340	10	10	330	Buy
0	3.760	20	340	30	30	310	Buy
50	3.770	50	340	80	80	260	Buy
100	3.780	110	290	190	190	100	Buy
70	3.790	20	190	210	190	20	Sell
30	3.800	40	120	250	120	130	Sell
90	3.810	20	90	270	90	180	Sell

In this example, the Equilibrium Price is \$3.790 where the tradable volume is the largest (190) and the imbalance is the lowest (20).

If market orders are present a situation may arise in which the lowest imbalance occurs at "Market Price", see sub-paragraph (2A).

¹ The examples shown are not exhaustive.

If the highest tradable volume and lowest imbalance occur at more than one price the algorithm will then consider market pressure, see sub-paragraph (3).

(2A) If market orders are present and the market order volume on one side exceeds the cumulative order volume on the opposite side there would be a Market Order Surplus. This means that the lowest imbalance occurs at "Market Price". In this situation, one tick will be added on the side with the Market Order Surplus and that would be the Equilibrium Price. See Example 2A.

Example 2A

Bid Volume	Price	Ask Volume	Cumulative Bid Volume (a)	Cumulative Ask Volume (b)	Tradable Volume	Imbalance (a)-(b)	Pressure
	MKT		50	0			
	3.750	10	50	10	10	40	Buy
	3.760		50	10	10	40	Buy
	3.770	10	50	20	20	30	Buy
10	3.780		50	20	20	30	Buy
	3.790		40	20	20	20	Buy
10	3.800		40	20	20	20	Buy
	3.810		30	20	20	10	Buy
30	MKT		30	20	20	10	Buy

In this example, the lowest imbalance (10) occurs where market order bid volume (30) exceeds cumulative ask volume (20). One tick has therefore been added on the bid side, and the Equilibrium Price is \$3.810.

- (3) If the highest tradable volume and lowest imbalance occur at more than one price ("the price overlap") the Equilibrium Price is determined by market pressure:
 - (a) with only buy pressure within the price overlap, the Equilibrium Price is the highest price within the price overlap, or
 - (b) with only sell pressure within the price overlap, the Equilibrium Price is the lowest price within the price overlap. See Example 3.

Buy (sell) pressure occurs when the cumulative bid (offer) volume is greater than the cumulative offer (bid) volume at a particular price.

Example 3

Bid Volume	Price	Ask Volume	Cumulative Bid Volume (a)	Cumulative Ask Volume (b)	Tradable Volume	Imbalance (a)-(b)	Pressure
0	3.750	10	260	10	10	250	Buy
0	3.760	20	260	30	30	230	Buy
50	3.770	50	260	80	80	180	Buy
0	3.780	110	210	190	190	20	Buy
90	3.790	0	210	190	190	20	Buy
30	3.800	40	120	230	120	110	Sell

90	3.810	20	90	250	90	160	Sell
50	3.010	20	50	230	50	100	Jen

In this example there is only buy pressure in price overlap, the Equilibrium Price is \$3.790 which is the highest price in the price overlap.

- (4) If the highest tradable volume and lowest imbalance occur at more than one price and there is both buy and sell pressure or nil pressure within the price overlap, the Equilibrium Price is:
 - (a) the price within the price overlap that is the closest to the last traded price, or
 - (b) where there is no last traded price, the lowest price within the price overlap.

See Example 4.

Example 4

Bid Volume	Price	Ask Volume	Cumulative Bid Volume (a)	Cumulative Ask Volume (b)	Tradable Volume	Imbalance (a)-(b)	Pressure
0	3.750	10	260	10	10	250	Buy
0	3.760	20	260	30	30	230	Buy
50	3.770	50	260	80	80	180	Buy
0	3.780	130	210	210	210	0	Nil
90	3.790	0	210	210	210	0	Nil
30	3.800	40	120	250	120	130	Sell
90	3.810	20	90	270	90	180	Sell

In this example, assuming that the last traded price was \$3.800, the Equilibrium Price is \$3.790.

AMENDMENTS TO PRACTICE NOTE 8.10.1

<u>Sample</u>: Rule insertions Sample: Rule deletions

Practice Note 8.10.1— Characteristics of Suspension and Trading Halt

Issue Date	Cross Reference	Enquiries
Added on 3 April 2008, amended on 21 September 2011, 26 March 2012 and 16 September 2016.	Rules <u>8.10.1</u> – <u>8.11.1A</u>	Please contact: Member Supervision Facsimile No: 6538 8273 E-Mail Address: membersup@sgx.co m Securities Market Control E-Mail Address: securities.mc@sgx.com

This Practice Note explains the characteristics of a suspension and a trading halt.

ITEM	CHARACTERISTIC	SUSPENSION	TRADING HALT
1	Initiating party	A suspension can be imposed by SGX-ST under the circumstances stated in Rule 8.10.1. An Issuer may also request a suspension if its request for extension of a trading halt under Item 3 is not approved by SGX-ST.	A trading halt is-can be imposed by SGX-ST under the circumstances stated in Rules 8.11.1 and 8.11.1A. at the request of an Issuer, usually before making a material announcement to the market.
2	Status of unmatched orders	During a market suspension, Unmatched orders in a suspended security or Futures Contract in the Trading System may lapse, as determined by SGX-ST. SGX-ST will notify Trading Members of the status of their unmatched orders before the lifting of a market suspension. During a suspension of a single security or Futures Contract, all unmatched orders will lapse.	During a trading halt, all existing orders in the ready and unit share markets remain valid. Orders can still be entered, reduced in quantity modified or withdrawn in the ready and unit share markets but are not matched. If a trading halt is not lifted by the end of a Market Day, all unmatched orders lapse.
3	Duration of suspension or trading halt	A suspension <u>may persist</u> is usually for a prolonged period.	A trading halt is usually intra-day, with a minimum duration of 30 minutes. SGX-ST may extend the duration of a trading halt beyond

3 Market Days upon the Issuers' request.

4 Upon lifting of suspension or trading halt

Upon lifting of a suspension, the suspended security or Futures Contract will enter into an Adjust Phase for at least 15 minutes. **During this Adjust Phase, orders** can be entered, reduced in quantity or withdrawn for the ready and unit share markets. At the end of this Adjust Phase, orders that can be matched will be matched at a single price computed based on the algorithm set by SGX-ST. Unmatched orders are carried forward into the respective phase the market is in when the Adjust Phase ends.

Upon lifting of a trading halt, orders that can be matched will be matched at a single price computed based on the algorithm set by SGX-ST. Unmatched orders are carried forward into the respective phase the market is in when the trading halt is lifted.