Insertions are in blue and <u>underline</u>. Deletions are in blue and strikethrough.

## **Futures Trading Rules**

#### 4.1.8 Error Trades

An error trade occurs when a transaction is effected on QUEST as a result of an error in the entry of a bid or offer that is subsequently matched. The following procedures apply in relation to error trades:

- (a) a Member shall take all necessary steps and exercise due diligence in monitoring trades done for any errors;
- (b) a Member requesting cancellation or repricing of an error trade an error trade cancellation or price adjustment shall promptly take all necessary mitigating actions to minimize the losses suffered.
- (c) the error trade policy administered by the Exchange may be specific to the Market or a Contract. The Exchange's error trade policies are set out more fully in the Regulatory Notice.\* Upon the occurrence of an error trade, the Exchange retains the discretion to cancel or reprice adjust the price of such error trade in accordance with its error trade policy. The Exchange may impose any condition on the cancellation or repricing price adjustment of an error trade, including the charging of fees for requests to cancel or reprice adjust the price of any error trade;
  - \* Refer to Regulatory Notice 4.1.8.
- (d) the cancellation or repricing <u>price adjustment</u> of an error trade by the Exchange does not affect the Exchange's right to take any disciplinary action against the Member, Approved Trader or Registered Representative who was responsible for the error trade.

For the avoidance of doubt, the Exchange is not liable for any loss or damage (including consequential loss or damage) which may be suffered as a result of the cancellation or repricing price adjustment of an error trade in accordance with this Rule 4.1.8.

Amended on 26 November 2007.

## Regulatory Notice 4.1.8 — SGX-DT Market Error Trade Policy

Issue Date	Cross Reference	Enquiries
Amended on 2 July 2007, 16 July 2012 and 28 October 2013.	Rule 4.1.8	Please contact:  Derivatives for policy issues: Telephone No.: 236 8888  Derivatives Market Control ("DMC") for operational issues: Telephone No.: 6236 8433 Facsimile No.: 6536 6480 Email address: derivatives.mc@sqx.com

#### 1. Introduction

**1.1** This Regulatory Notice explains the error trade policy applied to Contracts traded on the SGX-DT Market.

# 2. Error Trade Policy Applicable to Contracts Traded on the SGX-DT Market

# 2.1 General Principles

- 2.1.1 An error trade occurs when a transaction is effected on QUEST as a result of an error in the entry of a bid or offer that was subsequently matched.
- 2.1.2 Subject to sub-paragraph 2.1.4, the Exchange will only exercise its discretion to:
  - (a) cancel an error trade partially or fully; or
  - (b) adjust the trade price of the error trade partially or fully to the nearest limit of the error trade price range,

if a party to the trade makes a request as specified in sub-paragraph 2.6.1 below, and the trade price falls outside the error trade price range for the Contract for that day. If an error trade is done within the error trade price range, then the trade will stand, and no further action will be taken. The upper and lower limit of the error trade price range is determined in relation to a reference price calculated by the Exchange in accordance with paragraph 2.2.

- 2.1.3 However, there will be no trade price adjustments for:
  - (a) transactions in strategies listed for trading by the Exchange;
  - (b) trades involving implied orders as a result of strategy matching; and

(c) option trades, except those involving designated Option Contracts when the underlying cash market is open for trading.

In relation to error trades in the transactions specified in sub-paragraphs (a)-(c) above, the Exchange may at its discretion, cancel such error trades partially or fully, if a party to the trade makes a request as specified in sub-paragraph 2.6.1 below, and the relevant counterparties to the error trade agree to the cancellation within the time specified by the Exchange.

- 2.1.4 Notwithstanding sub-paragraph 2.1.2 and 2.1.3 above, the Exchange retains the power to cancel an error trade partially or fully or adjust the trade price of an error trade if, in the Exchange's opinion, it is desirable to do so, to protect the financial integrity, reputation or interests of the Markets established or operated by the Exchange. The Exchange's discretion to adjust the trade price or cancel a trade, either partially or fully, may be exercised even where the trade is within the error trade price range.
- 2.1.5 For the avoidance of doubt, error trades will not be cancelled except as provided for under sub-paragraphs 2.1.3 and 2.1.4.
- 2.1.6 A Member shall take all necessary steps and exercise due diligence in monitoring trades done for any errors.
- 2.1.7 A Member requesting an error trade cancellation or price adjustment shall promptly take all necessary mitigating actions to minimize the losses suffered.

# 2.2 Error Trade Price Range

#### **Futures Contracts**

2.2.1 The Exchange will approve a list of designated Futures Contracts as set out in Appendix A. For designated Futures Contracts traded when the underlying cash market is open for trading, the dynamic futures reference price shall be the average of the high and low traded prices in the minute before the error trade. If there are no trades in the minute before the error trade, the dynamic futures reference price will be determined by theoretical pricing models using, among other variables, the latest cash index value before the error trade.

# Refer to Appendix A of Regulatory Notice 4.1.8.

- 2.2.2 If an error trade occurs in connection with a Futures Contract which is not a designated Futures Contract, or when the error trade occurs in connection with a designated Futures Contract when the underlying cash market is not open for trading, the opening price shall be assigned as the static futures reference price. If the opening price is not available, the Exchange may use other prices that it thinks in its discretion are reasonable. For instance, the Exchange may use the previous day's closing price.
- 2.2.3 The Exchange computes the error trade price range for a Futures Contract by taking into account the trading and closing prices of the Contract or any other relevant information (for example, relevant market information in a recent three (3) month period). The upper and lower limits of the error trade price range are determined in relation to the relevant futures reference price.

2.2.4 The following is an example for the calculation of the dynamic futures reference price in relation to a designated Futures Contract.

For designated Futures Contracts, it is possible to establish a fairly accurate dynamic reference price when the underlying cash market is open. Therefore, the Exchange will apply a smaller error trade price range, with reference to the dynamic futures reference price. A dynamic futures reference price may be calculated as follows:

- (a) If there are trades in the minute before the error trade, calculate the average of the high & low prices in the last minute as the dynamic futures reference price.
- (b) If the error trade occurs for a contract month other than the spot month, use the theoretical model with the latest cash index value to derive the theoretical spread between the spot month and the error trade contract month. This spread is then added to the spot month reference price calculated using (a) above to derive the dynamic futures reference price.
- (c) If (a) and (b) above are not applicable, calculate the theoretical price of the error trade contract month as the dynamic futures reference price.
- 2.2.5 The following is an example for the calculation of the error trade price range in relation to a designated Futures Contract.

This example uses the Yen-denominated SGX Nikkei Stock Average Futures Contract. Based on an evaluation of historical data the Exchange could set the following:

Error Trade Price Range of +/- 50 points for the spot quarter month

Error Trade Price Range of +/- 100 points for other contract months

The spot quarter month has a narrower error trade price range because its dynamic futures reference price, calculated using market traded prices, will be relatively accurate. The other contract months have a wider error trade price range because the dynamic futures reference price would likely have a theoretical component. A wider range is needed to ensure that bona-fide trades do not fall within the error trade price range. The Exchange may periodically adjust the error trade price range to reflect prevailing market conditions. DMC will broadcast the necessary information to Members in accordance with sub-paragraph 2.2.10.

Based on the dynamic futures reference price, an erring party's losses from error trades should be limited to fifty (50) points (¥25,000) per lot in the spot quarter month or one hundred (100) points (¥50,000) per lot in other contract months.

#### **Options Contracts**

- 2.2.6 The Exchange will approve a list of designated Option Contracts as set out in Appendix A. The option reference price for designated Option Contracts when the underlying cash market is open for trading shall be determined by theoretical pricing models using:
  - (a) in the case of an Option Contract that grants an option on a Futures Contract, among other variables, the futures reference price of the underlying Futures

Contract and the volatility of the Option Contract implied from the previous settlement price of the option contract.

(b) in the case of an Option Contract that grants an option on an Underlying, among other variables, the reference price of the underlying index and the volatility of interest rates, dividend, time to maturity and the option strike price.

## Refer to Appendix A of Regulatory Notice 4.1.8.

- 2.2.7A The Exchange computes the error trade price range for designated Option Contracts when the underlying cash market is open, by taking into account the trading and closing volatility of the Option Contract or any other relevant information (for example, relevant market information in a recent three (3) month period) to determine a volatility range. The Exchange may, in its discretion, determine different volatility ranges for the purpose of calculating the error trade price range. The option error trade price range shall be determined by theoretical pricing models using, among other variables, the dynamic futures reference price of the underlying Futures Contract and the volatility range. The Exchange may adjust the trade price of an error trade involving designated Option Contracts when the underlying cash market is open for trading in accordance with sub-paragraph 2.1.2(b).
- 2.2.7 If an error trade occurs in connection with an Option Contract which is not a designated Option Contract, or when the error trade occurs in connection with a designated Option Contract when the underlying cash market is not open for trading, the opening price shall be assigned as the static option reference price. If the opening price is not available, the Exchange may use other prices that it thinks in its discretion are reasonable. For instance, the Exchange may use the previous day's closing price. The Exchange computes the error trade price range for such Option Contracts by applying a percentage to the option reference price referred to in this sub-paragraph. The Exchange may cancel an error trade involving Option Contracts referred to in this paragraph in accordance with sub-paragraph 2.1.2(a).
- 2.2.8 The following is an example for the calculation of the error trade price range in relation to a designated Option Contract.

For designated Option Contracts, it is possible to establish a fairly accurate dynamic futures reference price when the underlying cash market is open. The option error trade price range is calculated using a theoretical option pricing model with variables including the dynamic reference price of the underlying Futures Contract and a volatility range.

This example uses the SGX Option Contract on Nikkei Stock Average Futures. The Exchange could set the following volatility range (with reference to the previous day settlement implied volatility):

	Within 1,000 points from at-the-money	Other Strikes
Spot Month	+/- 4%	+/- 6%
Other Months	+/- 5%	+/- 8%

The option reference price will be calculated using the option pricing model with

variables including the dynamic futures reference price of the underlying Futures Contract and the previous day settlement implied volatility.

In addition, the option error trade price range is subject to a minimum level (to prevent frivolous price adjustments) and a maximum level (to cater to special circumstances for Option Contracts).

This example uses the SGX Option Contract on Nikkei Stock Average Futures. Based on evaluation of its historical data, the Exchange could set:

Maximum price range of +/- 100 points for contracts with 6 months or less to

expiry

+/- 200 points for other contract months

Minimum price range of +/- 30 points

The Exchange may apply the maximum price range to all Option Contracts that are more than 1,500 points in-the-money and all expiring options on the Monday of the week of expiration to the Last Trading Day. Deep in-the-money Option Contracts have high delta and thus the price change largely mirrors the price change of the underlying. It is thus appropriate to use a fixed error trade price range. In addition, as the Option Contract approaches expiry, small changes in traded option prices cause relatively large changes in traded implied volatility. The result is that the volatility range may not be sufficient to encompass the volatility changes near the expiry of the contract. Based on historical data, the traded implied volatility of the Option Contract would start to change rapidly during the week of expiration. Hence, the maximum price range will generally be imposed during this period. The Exchange may adjust, with prior notice, the maximum price range and applicable circumstances as market conditions change.

#### **Exchange's discretion**

2.2.9 Notwithstanding sub-paragraphs 2.2.1 to 2.2.8 above, the Exchange retains the discretion to take into account other relevant market information to determine the error trade price range or the reference price, and determine error trade price ranges using any other methodology, if, in the Exchange's opinion, it is desirable to do so to protect the financial integrity, reputation or interests of the Markets established or operated by the Exchange.

## DMC notification of error trade price range or volatility range

2.2.10 DMC will notify all Members of the error trade price range or volatility range, in terms of absolute prices or percentages, as the case may be, via the broadcast message on a daily basis. In addition, the Exchange will inform all Members, via circular, of any changes in the size of the error trade price range or volatility range at least one (1) week before effecting such change.

# 2.3 Factors That the Exchange may Consider in its Exercise of Discretion

- 2.3.1 The Exchange may consider the following factors when deciding whether to adjust the trade price or cancel any trades:
  - (a) the difference between the price at which the error trade was done and the preceding traded prices of the Contract;

- (b) market conditions, including market liquidity in the Contract at the time the error trade occurred;
- (c) the monetary loss involved and the financial impact on the parties if the error trade is or is not adjusted or cancelled;
- (d) the reason(s) given by the erring party for the error;
- (e) whether the error trade was caused partially or fully by problems with the Exchange's systems; and
- (f) any other relevant factors.

# 2.4 Compensation and Dispute Resolution

2.4.1 Under sub-paragraph 2.1.3, certain error trades may be cancelled if the counterparties consent to the cancellation. The terms of the cancellation of the error trade (including any compensation payable) are for the relevant parties to agree on. The Exchange will not be involved in this process or in any disputes arising from this process.

## 2.5 Administration Fee For Trade Cancellation / Price Adjustment Request

2.5.1 A trade review administration fee ("Administrative Fee") of SGD\$500 will be imposed on every request received to adjust the price of or cancel an error trade. The following table sets out an estimate for the Administrative Fee, which is set at a maximum of SGD\$1,000 for each request.

No of Requests in a year starting from 1 July to 30 June	Fee
1 <sup>st</sup> -request	<del>SGD\$250</del>
Next 2 requests	SGD\$500
Next 2 requests	<del>SGD\$750</del>
6 <sup>th</sup> request and above	SGD\$1000

If the Exchange deems the error trade to be serious, it may charge a higher amount than the <u>Administrative Fee</u>. fee indicated in the above table which does not exceed the maximum fee.

2.5.2 The Member shall pay the Administrative Fee to the Exchange within such time specified by the Exchange following its determination of the fee. The Administrative Fee shall be paid regardless of whether the error trade has had its price adjusted or is cancelled by the Exchange.

# 2.6 Procedure For Error Trade(s)

2.6.1 The Member's authorised co-ordinator<sup>1</sup> intending to report an error trade shall:

<sup>&</sup>lt;sup>1</sup> A Trading Member intending to report an error trade shall do so via its Clearing Member's authorised co-ordinator.

- (a) contact the DMC within ten (10) minutes from the time the trade is done, and request for the trade to have its price adjusted or cancelled. The Exchange may, in its discretion extend this period depending on the situation; and
- (b) immediately complete the QUEST ERROR TRADE INFORMATION FORM and send it by fax or email to DMC.
- 2.6.2 Once an error trade has been brought to the attention of the DMC in accordance with this Regulatory Notice, the following procedures will apply:—
  - (a) DMC will send an alert to all QUEST terminals indicating that a specified trade may be in error; and
  - (b) For cancellation of trades, the Exchange will, at its discretion, cancel a trade, either partially or fully, only if all counterparties to the error trade agree to the trade cancellation within fifteen (15) minutes of the alert sent by DMC in subparagraph 2.6.2(a) above. The Exchange reserves the right to may extend this period at its sole discretion in situations where it deems appropriate. depending on the situation and the number of counterparties involved in the error trade. There will be no trade cancellation beyond 15 minutes after the close of T or T+1 session, as the case may be.
  - (c) DMC will send a message to all QUEST terminals of the Exchange's decision in respect of any request to cancel a trade or adjust the trade price.
- 2.6.3 The Exchange will not consider any requests to review its decision following an announcement under 2.6.2(c).

Amended on 16 July 2012 and 28 October 2013.

# Insertions are in blue and <u>underline</u>. Deletions are in blue and strikethrough.

#### Practice Note 4.1.9 —Procedures for Order Withdrawal

Issue Date	Cross Reference	Enquiries
Added on 22 September 2006.	Rule 4.1.9	Please contact Derivatives Market Control ("DMC"): Telephone No. : 6236 8433 Facsimile No : 6536 6480 E-Mail Address : derivatives.mc@sgx.com

#### 1. Introduction

- 1.1 This Practice Note explains the circumstances, conditions and operational procedures pursuant to which the Exchange would assist Clearing Members to effect order withdrawals.
- 1.2 As a general practice, <u>Trading</u> Members who face difficulties in effecting their order withdrawals should seek the assistance of their respective Clearing Members to withdraw their orders. For this purpose and where possible, Clearing Members should set up appropriate supervisory access to the trading system to administer such requests.

# 2. Technical Fault and Withdrawal by Exchange on Reasonable Efforts Basis

- 2.1 In the event of Technical Faults, the Exchange would assist in effecting order withdrawals at the request of the Clearing Members and subject to the terms and procedures set forth below. "Technical Faults" as used herein refers to any loss of connection to Exchange Systems which prevents a Clearing Member from effecting order withdrawals without the Exchange's assistance.
- 2.2 Order withdrawal by the Exchange in the event of Technical Faults would be effected on a reasonable endeavours basis. The Clearing Member agrees that the Exchange has no liability for order withdrawals and related activities conducted on behalf of a Member.
- 2.3 The Clearing Member indemnifies and will keep indemnified the Exchange against all actions, proceedings, claims, demands, damages, costs, expenses and any other amounts against or incurred by the Exchange arising out of or in connection with any action taken or any inaction by the Exchange, or any of the Exchange's officers, employees, agents, delegates or contractors with respect to such order withdrawals.
- 2.4 For the avoidance of doubt, nothing in this Practice Note should be construed as limiting a Clearing—Member's obligation to install and maintain a robust and technically sound system, risk management processes or business continuity plans as required under the Rules or any applicable laws.
- 2.5 Clearing Members may request the Exchange to withdraw orders at the following levels:
  - (a) individual order level; or

(b) access ID firm-wide order level.

# 3. Operational Safeguards and Discrepancies

- 3.1 A Clearing Member shall comply with the instructions and directions issued by MCD DMC when effecting order withdrawals as contemplated herein. MCD DMC also reserves the right to refuse any such request without providing any reason.
- 3.2 All verbal requests for order withdrawals ("Request") shall be recorded by MCD DMC. Clearing—Members are also required to comply with various operational safeguards and procedures as issued by MCD DMC from time to time including matters relating to the:
  - (a) appointment of authorised firm coordinators by Clearing Members to effect order withdrawals and the provision of authentication details in connection therewith;
  - (b) making of a Request via telephone numbers as designated by MCD DMC;
  - (c) submission of an order withdrawal form with the material information as requested by MCD DMC; and
  - (d) processing of Requests at accessfirm ID firm-wide order level and individual order levels.
- 3.3 If a Clearing Member finds any discrepancies between the order withdrawal form and the Request, the Clearing Member should notify MCD DMC immediately with details of such discrepancies. Depending on the nature of the discrepancy, MCD DMC would generally rely on the voice recording of the Request for its post-withdrawal investigations