Large-Scale Error Trade Briefing Session

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Large-Scale Error Trade Rule Amendments

Effective Date: 7th December 2020

Agenda

01 | Current Error Trade Rules & Procedures
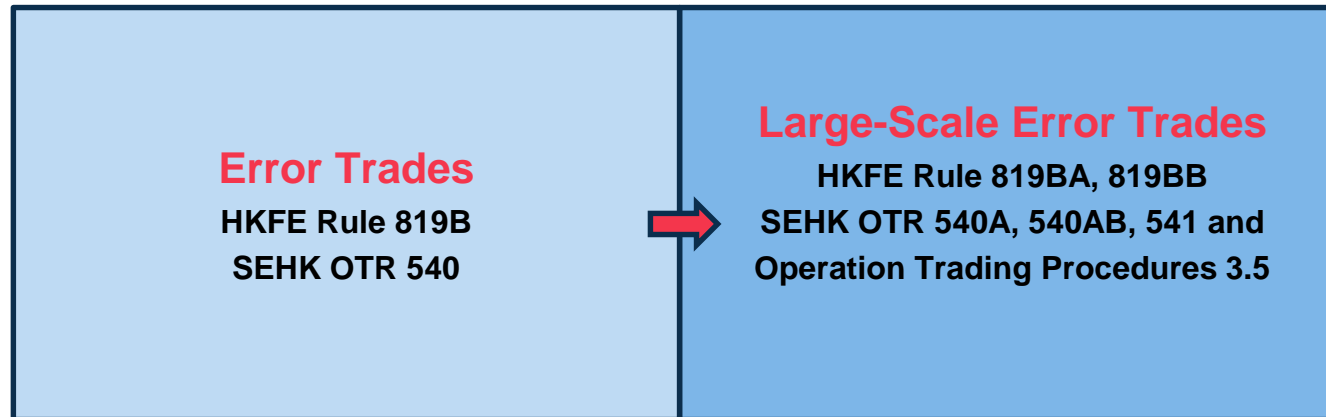
Relevant Rules	• HKFE Rule 819B • SEHK Options Trading Rule (OTR) 540
Claim Prerequisites	• Within Prescribed Time Limit pursuant to the relevant rules • Prescribed Time Limit for HKFE: Within 10 minutes after the time of the trade (Within 30 minutes for Tailor-Made Combination) • Prescribed Time Limit for SEHK stock options: Within 30 minutes after the time of the trade • Provide required potential Error Trade information as per HKFE Circular **MO/DT/103/17**[1] & SEHK Circular **MO/DT/104/17**[2]
Price Parameters	• Error Trade Price Parameters specified in Error Trade Handling Procedures at HKEX Website
Notation / Reference Determination Methods	• Notation / Reference Price determination methods noted in Error Trade Handling Procedures at HKEX Website • A consensus price with consultations to market practitioners if necessary
Trades under review	• Claimed trades only
Consent to cancel	• Needed and if the parties to the Error Trade do not consent to its cancellation, or if an objection from any other Exchange Participant is brought to the attention of the Exchange, or if not all the parties to the Error Trade can be contacted, a special HKATS Error Trade Review Panel ("Panel") shall be convened immediately
Broadcast Channel	• HKATS Market Message

Current Error Trade Rules and Procedures will be retained.

1. https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2017/MO_DT_103_17_e.pdf
2. https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2017/MO_DT_104_17_e.pdf

02 | Large-Scale Error Trade Determination

Error Trades	Large-Scale Error Trades
Error Trades **HKFE Rule 819B** **SEHK OTR 540**	**Large-Scale Error Trades** **HKFE Rule 819BA, 819BB** **SEHK OTR 540A, 540AB, 541 and** **Operation Trading Procedures 3.5**

HKFE Rule 819BA:

"If the Error Trades claimed by an Exchange Participant are of such magnitude or complexity that any claim in respect of such Error Trades may have to be handled in accordance with this Rule 819BA ("Large-Scale Error Trades"), the Exchange will broadcast an alert on HKATS as soon as practicable that such trades may be subject to a Large-Scale Error Trade claim. If the Exchange in its absolute opinion determines, taking into consideration relevant factors such as the number of trades, counterparties, futures contract months and option series involved, that the claim should be handled as a Large-Scale Error Trade claim …"

(Please refer to SEHK OTR 540A for similar details)

02 | Large-Scale Error Trade Determination

Criteria for Large-Scale Error Trades:
i. the number of trades involved ≥ 100
ii. the number of contract series involved ≥ 15
iii. the number of counterparties involved ≥ 5

Note:
- The Exchange will take into account all relevant factors including but not limited to the above criteria to determine, in its absolute discretion, if a claim should be handled as a Large-Scale Error Trade claim.
- Generally, the Exchange may apply the following approach in determining whether a case will be handled in accordance with the Large-Scale Error Trade Rules:
  a) where **all three criteria are met** or where **the number of involved trades is ≥ 500**, the Large-Scale Error Trade Rules will typically apply;
  b) where **only one or two criteria is/are met**, the decision will be determined by the Exchange in its absolute discretion if a claim should be handled as an LET claim; and
  c) where **none of the criteria is met**, the Exchange will not normally apply the Large-Scale Error Trade Rules unless it determines otherwise in its absolute discretion based on relevant factors in such particular case.
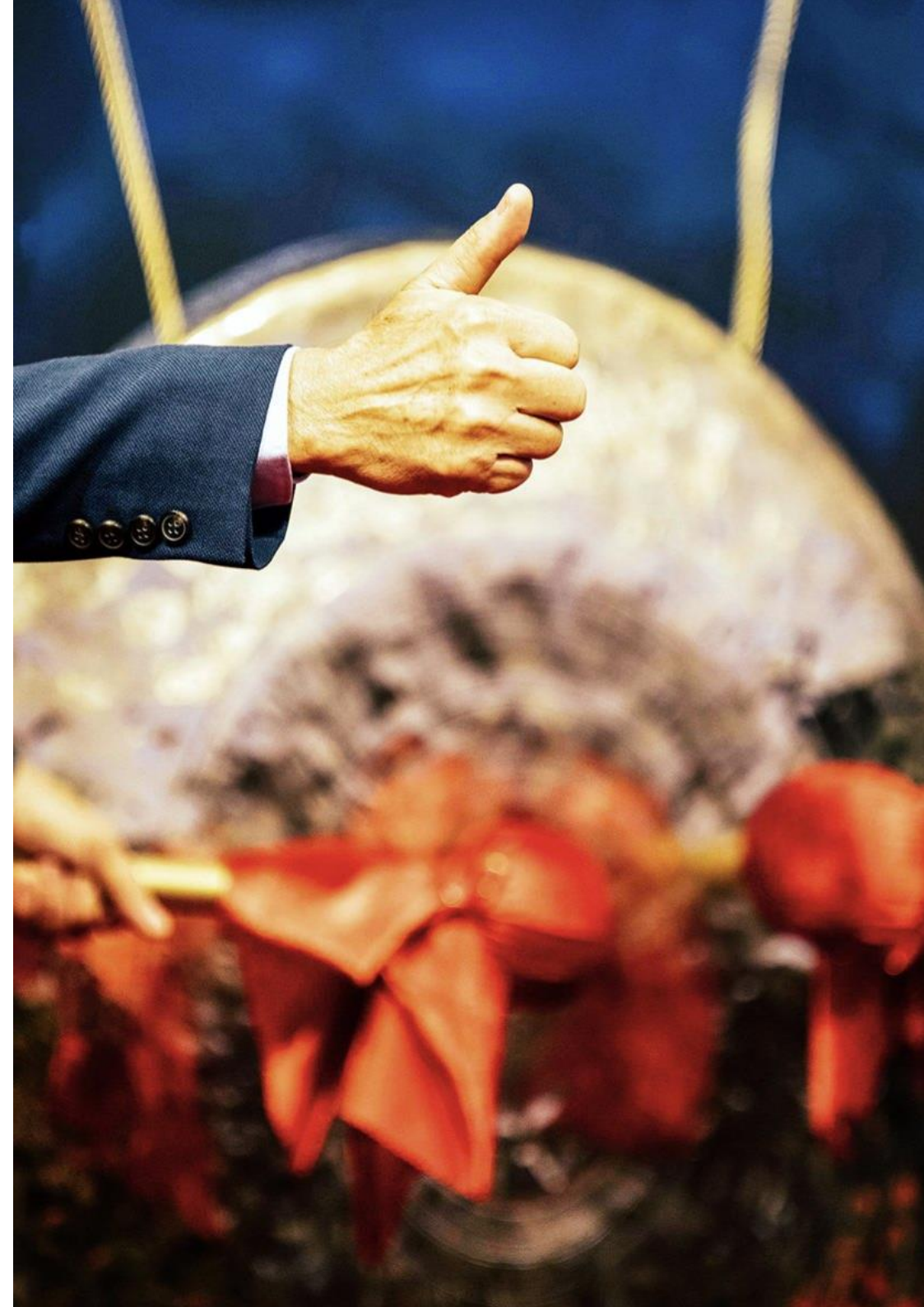
03 | Large-Scale Error Trade Rules & Procedures

Relevant Rules	• HKFE Rule 819BA, 819BB • SEHK Options Trading Rule 540A, 540AB, 541 and Operation Trading Procedures 3.5
Claim Prerequisites	• Within Prescribed Time Limit pursuant to the relevant rules (No change) • The Exchange may consider the claim deficient and may in its absolute discretion not entertain the claim according to HKFE Rule 819B and SEHK OTR 540 provided the potential Error Trade information as per HKFE Circular MO/DT/103/17 & SEHK Circular MO/DT/104/17 cannot be provided and the Error Trades claimed are not determined to be Large-Scale Error Trades by the Exchange.
Price Parameters	• Large-Scale Error Trade Price Parameters specified in Large-Scale Error Trade Handling Procedures at HKEX Website • In general, 200% of Error Trade Price Parameters
Notation / Reference Determination Methods	• Notation / Reference Price determination methods noted in Large-Scale Error Trade Handling Procedures at HKEX Website • Exchange determined. Using theoretical price for options products
Trades under review	• Claimed trades and other related trades. Unless otherwise determined by the Exchange at its sole discretion, all trades which took place on HKATS at a level which deviated from the Large-Scale Error Trade Price Parameters and within such time period as may be determined by the Exchange shall be cancelled (whether the trades have been claimed as Error Trades by an Exchange Participant or not).
Consent to cancel	• Not applicable.
Broadcast Channel	• HKATS Market Message • HKEX Website

Error Trade	Large-Scale Error Trades
HK$3,000 per trade payable by the party which initiated the claim	

05 | Summary Of Useful Information For Quick Reference

Effective Date : 7th December 2020	
Large-Scale Error Trade Rule Amendments	HKFE (English) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2020/107_20_HKFE_LET-Rule-Amendments_Error-Trades_e.pdf SEHK (English) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2020/108_20_OTR_OTP_LET-Rule-Amendments_Error-Trades_e.pdf English version only
Supplementary information for Large-Scale Error Trade Rule Amendments	HKFE (English) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2020/MO_DT_240_20_e.pdf SEHK (English) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2020/MO_DT_241_20_e.pdf HKFE (Chinese) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/HKFE/2020/MO_DT_240_20_c.pdf SEHK (Chinese) https://www.hkex.com.hk/-/media/HKEX-Market/Services/Circulars-and-Notices/Participant-and-Members-Circulars/SEHK/2020/MO_DT_241_20_c.pdf
Large-Scale Error Trade Handling Procedures	English: https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Large-Scale-Error-Trade-Procedures?sc_lang=en Chinese: https://www.hkex.com.hk/Services/Trading/Derivatives/Overview/Trading-Mechanism/Large-Scale-Error-Trade-Procedures?sc_lang=zh-HK

06 | Appendix (1)

Notation / Reference Price Determination Methods for Outright Options Contracts

	Error Trades	Large-Scale Error Trades
Stock Index Options	i. The average of the prices of the previous match and the next match in that option series occurring reasonably close to the time of error trade. If this average price fails to reflect a fair price, the notation price will be determined on the basis of item (ii) below. ii. The reasonable bid and offer prices available around the time of error trade, unless in the sole discretion of the Exchange, this fails to reflect a fair price, in which case the Exchange may consult up to 3 independent market practitioners who have no interest in the trade in order to arrive at a valid notation price.	• Theoretical prices determined by the Exchange • The Notation Price determined by the theoretical price model shall be binding on the parties to these trades and the parties to these trades shall not be entitled to object to the theoretical price model or appeal against the Exchange's decision for any reason.
Currency Options	i. The average of the prices of the previous match and the next match in that option series occurring reasonably close to the time of error trade. If this average price fails to reflect a fair price, the notation price will be determined on the basis of item (ii) below. ii. The reasonable bid and offer prices available around the time of error trade, unless in the sole discretion of the Exchange, this fails to reflect a fair price, in which case the Exchange may consult up to 3 independent market practitioners who have no interest in the trade in order to arrive at a valid notation price.	
Stock Options	• Determination of the Reference Price will be based on the average of the prices of the previous match and the next match occurring that trading day in that option series unless in the sole discretion of the Exchange, this fails to reflect a fair price, in which case the Exchange may consult up to 3 independent options market practitioners who have no interest in the trade in order to arrive at a valid Reference Price.	

Large-Scale Error Trade Reference Price for Outright Stock Options Contracts

Stock Options

The theoretical price model will include the following parameters:

i.   Implied Volatility (IV) from the latest Risk Parameter Files[2] ("RPF"); and

ii.   Underlying Stock Traded Price at or immediately before the time of the option trade; and

iii.   Risk Free Rate from the latest RPF; and

iv.   Dividend Date and Dividend available in HKATS

Notwithstanding the foregoing, the Exchange shall have absolute discretion in determining the parameters.

The Reference Price determined by the theoretical price model shall be binding on the parties to these trades and the parties to these trades shall not be entitled to object to the theoretical price model or appeal against the Exchange's decision for any reason.

Outright Stock Index Options and Currency Options

The theoretical price model will include the following parameters:

i.   Implied Volatility (IV) from the latest Risk Parameter Files[2] ("RPF"); and

ii.   Underlying Futures Price at or immediately before the time of the option trade

Notwithstanding the foregoing, the Exchange shall have absolute discretion in determining the parameters.

The Underlying Futures Prices for respective option contract months are defined as follow:

On Normal Trading Days

Option Contract Months	Underlying Futures Prices
Spot month	Underlying spot month Futures last traded price at or immediately before the time of the option trade
Other months	Underlying spot month Futures last traded price at or immediately before the time of the option trade plus previous day's rollover spread between the daily settlement price of the contract month under evaluation and the daily settlement price of the spot month

On Last Trading Day

Option Contract Months	Underlying Futures Prices
Spot month	Underlying spot month Futures last traded price at or immediately before the time of the option trade
Spot next month	Underlying spot next month Futures last traded price at or immediately before the time of the option trade
Other months	Underlying spot next month Futures last traded price at or immediately before the time of the option trade plus previous day's rollover spread between the daily settlement price of the contract month under evaluation and the daily settlement price of the spot next month

When the Underlying Futures price is not available. The Exchange shall obtain the Underlying Futures price from the latest RPF.

The Notation Price determined by the theoretical price model shall be binding on the parties to these trades and the parties to these trades shall not be entitled to object to the theoretical price model or appeal against the Exchange's decision for any reason.

06 | Appendix (3) – Notation Price Outright HKFE Options

Outright Weekly Index Options

Theoretical Price Model will include the following parameters:

i.   Implied Volatility (IV) from the latest Risk Parameter Files ("RPF"); and

ii.   Underlying Futures price at or immediately before the time of the option trade

Notwithstanding the foregoing, the Exchange shall have absolute discretion in determining the parameters.

The Underlying Futures price for a weekly option contract is the last traded price of the spot month monthly Futures contract of the same underlying at or immediately before the time of the option trade. Except that on the last trading day of a Monthly Futures, the underlying Futures price for a weekly option contract is the last traded price of the spot next month Monthly Futures of the same underlying at or immediately before the time of the option trade.

When the Underlying Futures price is not available. The Exchange shall obtain the Underlying Futures price from the latest RPF.

The Notation Price determined by the theoretical price model shall be binding on the parties to these trades and the parties to these trades shall not be entitled to object to the theoretical price model or appeal against the Exchange's decision for any reason.

06 | Appendix (4)

Notation / Reference Price Determination Methods for Futures and Other Contracts

	Error Trades	Large-Scale Error Trades
1) Futures Contracts (except for Iron Ore Futures, USD and CNH London Metal Mini Futures, USD and CNH Gold Futures and USD and CNH Silver Futures) (except BRICS & Currency Futures)	i. Last traded price within 5 minutes prior to the Error Trade ii. the mid-point of the best bid/ask price immediately prior to the Error Trade; or iii. last settlement price	The Notation Price of Futures Contracts shall be determined by the following sequence: i. last traded price immediately prior to the Large-Scale Error Trade; or ii. the Underlying Futures price from the latest RPF Notwithstanding the above, the Exchange shall have absolute discretion in determining the Notation Price.
2) Futures Contracts (for Iron Ore Futures, USD and CNH London Metal Mini Futures, USD and CNH Gold Futures and USD and CNH Silver Futures) (For BRICS & Currency Futures)	1. The average of the prices of the previous match and the next match in that contract month occurring reasonably close to the time of error trade. If this, in the opinion of the Exchange, fails to reflect a fair price, the notation price will be determined on the basis of item 2 below. 2. The reasonable bid and offer prices available around the time of error trade. If this, in the opinion of the Exchange, fails to reflect a fair price, the notation price will be determined on the basis of item 3 below. 3. The prices obtained by the Exchange from consulting up to 3 independent market practitioners who have no interest in the trade in order to arrive at a valid notation price.	

06 | Appendix (5)

Notation / Reference Price Determination Methods for Futures and Other Contracts

	Error Trades	Large-Scale Error Trades
Tailor-Made Combination	The trade price of the Tailor-Made Combination trade is such that it exceeds whichever is the greater of : 1. 30 ticks from the Notation/Reference Price of the Tailor-Made Combination trade concerned; or 2. 10 percent from the Notation/Reference Price of the Tailor-Made Combination trade concerned. For the purpose of determining a Notation/Reference Price: i. The Exchange shall base on the average of the prices of the previous match and the next match occurring that trading day in that Tailor-Made Combination trades or if this fails to reflect a fair price or such prices are not available, the Exchange may consult up to 3 independent market practitioners who have no interest in the trade to arrive at a valid Notation/Reference Price; or ii. If the market practitioners cannot provide a fair price of the Tailor-Made Combination trades concerned, the Exchange shall obtain the Notation/Reference Price* of each individual leg consisted of the Tailor-Made Combination trades in accordance with the Error Trades Rules for the respective HKFE product or Stock Options executed through the Central Order book, then the Exchange shall calculate the fair price of the Tailor-Made Combination trades concerned	The trade price of the Tailor-Made Combination trade is such that it exceeds whichever is the greater of: 1. 60 ticks from the Notation/Reference Price of the Tailor-Made Combination trade concerned; or 2. 20 percent from the Notation/Reference Price of the Tailor-Made Combination trade concerned. For the purpose of determining a Notation/Reference Price: i. The Exchange shall base on the last traded price prior to the Large-Scale Error Trade occurring that trading day in that Tailor-Made Combination; or ii. The Exchange shall obtain the Notation/Reference Price of each individual leg consisted of the Tailor-Made Combination trades from the latest RPF for the respective HKFE product or Stock Options, then the Exchange shall calculate the fair price of the Tailor-Made Combination trades concerned. Notwithstanding the foregoing, the Exchange shall have absolute discretion in determining the Notation/Reference Price.

06 | Appendix (6)

Notation / Reference Price Determination Methods for Futures and Other Contracts

	Error Trades	Large-Scale Error Trades
Standard Combination (For Combination Vs. Combination Trades Only)	**(Effective 11th December 2020)** The trade price of the Standard Combination Trade is such that it exceeds whichever is the greater of: 1. 30 ticks from the Notation Price of the Standard Combination Trade concerned; or 2. 10 percent from the Notation Price of the Standard Combination Trade concerned. For the purpose of determining a Notation Price: i. The Exchange shall base on the average prices of the previous match and the next match of the Combination Vs. Combination Trades occurring on that trading day in that Standard Combination Trades or if this fails to reflect a fair price or such prices are not available, the Exchange may consult up to 3 independent market practitioners who have no interest in the trade to determine a Notation Price; and i. If the market practitioners cannot provide a fair price of the Standard Combination Trades concerned, the Exchange shall obtain the Notation Price of each individual leg consisted of the Standard Combination Trades in accordance with the Error Trades Rules for the respective HKFE product executed through the Central Order book, then the Exchange shall calculate the fair price of the Standard Combination Trades concerned. Notwithstanding the above, the Exchange shall have absolute discretion in determining the Notation Price.	The traded price of the Standard Combination trade is such that it exceeds whichever is the greater of: 1. 60 ticks from the Notation Price of the Standard Combination trade concerned; or 2. 20 percent from the Notation Price of the Standard Combination trade concerned. For the purpose of determining a Notation Price: i. The Exchange shall base on the last traded price of the Combination vs. Combination trades prior to the Large-Scale Error Trade occurring that trading day in that Standard Combination trades; or ii. The Exchange shall obtain the Notation Price of each individual leg consisted of the Standard Combination trades from the latest RPF for the respective HKFE product, then the Exchange shall calculate the fair price of the Standard Combination trades concerned. Notwithstanding the above, the Exchange shall have absolute discretion in determining the Notation Price.

Thank You

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