The Disciplinary Action

- 1. The Securities and Futures Commission (**SFC**) has publicly reprimanded and fined Credit Suisse Securities (Hong Kong) Limited (**CSSHK**)¹ HK\$2.1 million pursuant to section 194 of the Securities and Futures Ordinance (**SFO**).
- 2. The disciplinary action is taken in respect of failures in CSSHK's electronic trading systems, which resulted in the submission of 16,935 erroneous market making quotes to the market and the execution of 8,042 stock options trades (**Concerned Trades**) at prices that deviated from the then prevailing market prices between 09:39 and 09:47 on 28 February 2019 (**Incident**).

Regulatory Requirements

- 3. General Principle 2 (Diligence) of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission (**Code of Conduct**) requires that in conducting its business activities, a licensed person should act with due skill, care and diligence, in the best interests of the integrity of the market.
- 4. Paragraph 18.5 (Adequacy of system) of the Code of Conduct requires a licensed person to ensure the integrity of the electronic trading system it uses, including the system's reliability, security and capacity, and have appropriate contingency measures in place.
- 5. Schedule 7 to the Code of Conduct further sets out specific requirements on a licensed person conducting electronic trading of listed securities and futures contracts. In particular, paragraph 1.2.2 of Schedule 7 requires a licensed person to ensure that the electronic trading system it uses and all modifications to the system are tested before deployment and are regularly reviewed to ensure that the system and modifications are reliable.

Summary of Facts

- 6. CSSHK is a stock options market maker.
- 7. The Incident was caused by a logic error² in the symbol mapping programme (**Programme**) of Mercury Direct, CSSHK's exchange connectivity application that is responsible for sending market making quotes to the market.
- 8. On 28 February 2019, due to the logic error, the Programme incorrectly mapped the March 2019 option series code generated internally by CSSHK to the HKEx³ March 2020 option series code.

¹ CSSHK is licensed under the SFO to carry on Type 1 (dealing in securities), Type 4 (advising on securities), and Type 7 (providing automated trading services) regulated activities.

² CSSHK submitted that the logic error was introduced during a system update in June 2013.

³ The Stock Exchange of Hong Kong Limited (**HKEx**).

- 9. As a result, 16,935 market making quotes were mistakenly sent to the market as quotes for contracts with March 2020 option series code at prices appropriate for options contracts expiring in March 2019.
- 10. The internal controls of CSSHK in place at the time failed to prevent and promptly detect the above errors for the following reasons:
 - (a) Pre-trade controls had been applied to the Concerned Trades based on the fair prices of options expiring in March 2019, and therefore no error was detected.
 - (b) Because of the logic error, Mercury Direct failed to recognise the Concerned Trades and hence did not relay their records to the posttrade control system. Error messages were written into the error logs, but did not generate alerts for the traders to immediately review these trades.
 - (c) CSSHK has been conducting regular tests on Mercury Direct, including annual tests required under Schedule 7 of the Code of Conduct, but these tests did not uncover the logic error.
- 11. At the end, 7,837 of the 8,042 Concerned Trades were cancelled, while the other 205 Concerned Trades were honoured by CSSHK.⁴ The cancelled trades affected up to 220,650 contracts in 66 stock options classes and 836 series and impacted 14 exchange participants⁵ and 11 SEOCH participants⁶ (including CSSHK).

Conclusion

- 12. Having considered all the circumstances, the SFC is of the view that CSSHK has failed to comply with GP 2, paragraph 18.5 of, and paragraph 1.2.2 of Schedule 7 to the Code of Conduct.
- 13. In reaching the decision to take the disciplinary action set out in paragraph 1 above, the SFC has taken into account all relevant circumstances, including the prompt remedial actions taken by CSSHK following the Incident and CSSHK's cooperation with the SFC in resolving the SFC's concerns.

⁴ CSSHK bore a total financial loss of US\$307,000 for these honoured trades, as a result of these trades being executed at a price lower than the prevailing market price.

⁵ Participants of HKEx.

⁶ Participants of the SEHK Options Clearing House Limited.