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HKEX

香港交易所

CONSULTATION PAPER

PROPOSAL FOR REVISION OF THE STOCK OPTION POSITION LIMIT MODEL

CONTENTS

EXECUTIVE SUMMARY

1. The derivatives market has played an indispensable role in maintaining the role of Hong Kong as an international risk management and financial centre as well as market stability in Hong Kong. To ensure the proper functioning of the derivatives market, position limits were introduced in 1995 when stock options were first traded on The Stock Exchange of Hong Kong Limited (the Exchange), which has been a wholly-owned subsidiary of Hong Kong Exchanges and Clearing Limited (HKEX) since 2000.

2. After the revision of the Securities and Futures Ordinance (SFO) in 2006, the statutory stock option position limit was increased from 5,000/25,000 open contracts to 50,000 open contracts in any one market direction for each stock option class and in respect of all expiry months. HKEX's trading rules prescribe the maximum stock option positions that Exchange Participants (EPs) and their clients can hold, but under Hong Kong's existing regime, the exchange-imposed position limit cannot exceed the statutory position limit.

3. Over the past decade, the market capitalisation of Hong Kong's securities market has grown substantially, leading to rising demand for different types of derivatives to meet the trading and hedging needs of market participants. Given that the last revision of the Exchange's stock option position limit was a decade ago, a review was necessary.

4. The following issues were identified after a review of HKEX's existing stock option position limit model:

   a) Currently, HKEX adopts a formulaic and two-tier approach when setting its position limit for stock options, taking into account the market capitalisation and liquidity of the underlying stocks. Under this approach, certain stock options are assigned a position limit of 50,000 contracts and others are assigned a position limit of 30,000 contracts. Due to the low threshold fixed by the statutory limit, HKEX has assigned the same position limit of 50,000 contracts to 80 of its 84 stock option classes in order to allow the market to have maximum flexibility. This means that although the Exchange uses a two-tier model, the entire market effectively operates under a single position limit of 50,000 contracts with no real differentiation as to the market price, board lot size and market capitalisation of the underlying stocks.

   b) Hong Kong's existing position limit regime does not have a regular review mechanism to cater for material changes in the characteristics of the underlying stock. There is also no regular review to cater for changes due to market development, and there is no mechanism for adjustments due to corporate actions that have an impact on the underlying stock. As a result, the effectiveness of stock options as a hedging tool may be affected.

5. Based on feedback from a previous soft consultation and a comparison with overseas markets, HKEX proposes a three-tier model for its stock option

position limit as described below. Under the model, HKEX's position limit is set by reference to the contract size along with the number of outstanding shares and turnover of the underlying stocks. The three-tier model's position limit is 150,000/100,000/50,000 open contracts in any one market direction for all expiry months combined. The proposed model has a mechanism for annual reviews of the limit and adjustments for corporate actions which result in a material change in the notional value of a stock options contract.

6. Consistent with the present regime, the position limit in HKEX's proposal is measured by reference to the number of open contracts that investors hold. HKEX has noted that some market participants consider the use of position delta as a more accurate reflection of the position holder's risk. However, according to feedback from the soft consultation, most market participants are supportive of the current approach and generally agree that using the number of contracts to set the position limit is in line with international practice, is easier to understand and makes it easier to monitor compliance. Also, significant operational changes can be avoided if the present approach is kept. Therefore, HKEX would continue to use the number of open contracts to measure its stock option position limit if the proposed three-tier model is adopted.

Timeline and responses to the Consultation Paper

7. HKEX invites market participants and any other individuals or organisations with views on its proposed three-tier model for its stock option position limit to submit their comments by completing and returning the questionnaire on or before 3 June 2016 (a softcopy of the questionnaire is available at http://www.hkex.com.hk/eng/newsconsul/mktconsul/Documents/cp201604q.doc).

8. HKEX will publish its consultation conclusions after considering the comments it receives. As the adoption of the proposed three-tier model described in this Consultation Paper would require changes to the SFO and HKEX's rules, it is subject to the approval of the Securities and Futures Commission (SFC).

CHAPTER 1: BACKGROUND AND REASONS FOR PROPOSED STOCK OPTION POSITION LIMIT REVISION

9. This Consultation Paper sets out the rationale for and the details of the proposal by HKEX to introduce a revised model for its Stock Option Position Limit.

Background of HKEX's Stock Option Position Limit

10. Derivatives play an indispensable role in Hong Kong's financial markets and market stability in Hong Kong. Exchange-traded derivatives are often used to manage risk due to their transparency and their efficiency in gaining and transferring exposure. A strong and sustainable derivatives market is crucial to Hong Kong's further success as an international financial centre.

11. To safeguard Hong Kong's derivatives market and prevent market abuse, stock options have had a position limit since they were introduced in 1995. Position limit is defined as the maximum number of futures or options contracts that may be held or controlled by a person or institution.

12. The position limits for exchange-traded futures and options are statutory in Hong Kong. They are prescribed in the SFO and enforced by the SFC. Breaches are criminal offences which are subject to a fine and/or imprisonment.

13. The current position limit for exchange-traded stock options was implemented in 2006[1]. It is stipulated in SFO as 50,000 open contracts per option class in any one market direction for all expiry months combined[2]. This prescribed limit is applicable to all stock option classes regardless of the size and liquidity of the underlying securities. Details of the statutory position limit are in Appendix I.

14. HKEX's rules set out the maximum position that EPs and their clients can hold, but the exchange's position limit must not exceed the statutory position limit. Based on the existing model, 80 of the 84 stock option classes are assigned a position limit of 50,000 contracts and four have a limit of 30,000 contracts.

15. Over the years, there has been significant growth in HKEX's stock options market. As the number of listed companies increased in Hong Kong, the number of stock option classes increased, climbing from 46 in 2006 to 84 in 2015. Over the same period, average daily volume of stock options trading at HKEX rose 410 per cent (from 73,390 contracts to 374,346 contracts), and the

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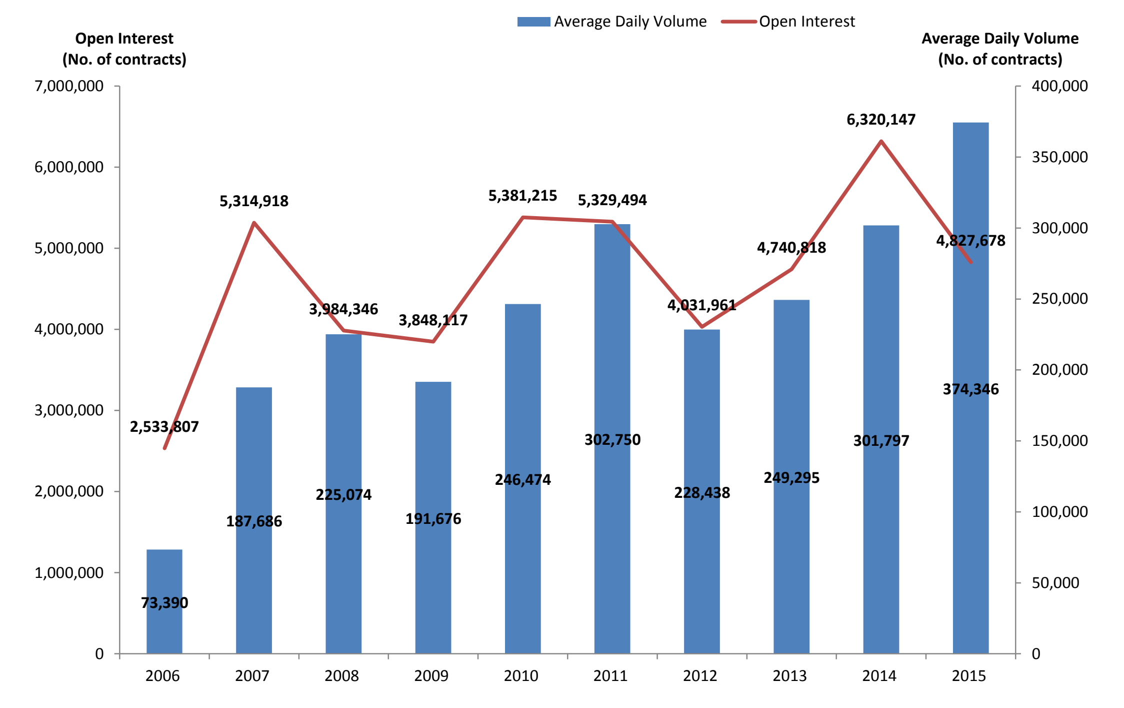
1 In 2006, the stock option position limit was revised from 5,000/25,000 open contracts per expiry month to 50,000 contracts for all expiry months per market direction.

2 For example, if the limit is 50,000 and an Options Exchange Participant is long a total of 35,000 calls and 15,000 puts and short a total of 10,000 puts and 32,000 calls in the same option class, the limit is not breached because the positions in one market direction are 45,000 contracts (long 35,000 calls and short 10,000 puts) and 47,000 contracts (short 32,000 calls and long 15,000 puts) in another market direction.

month-end open interest grew 91 per cent (from around 2.5 million contracts to around 4.8 million contracts). Chart 1 below shows the annual volume and open interest in HKEX's stock options market from 2006 to 2015:

Chart 1: Annual volume and open interest at year-end in HKEX's stock options market from 2006 to 2015

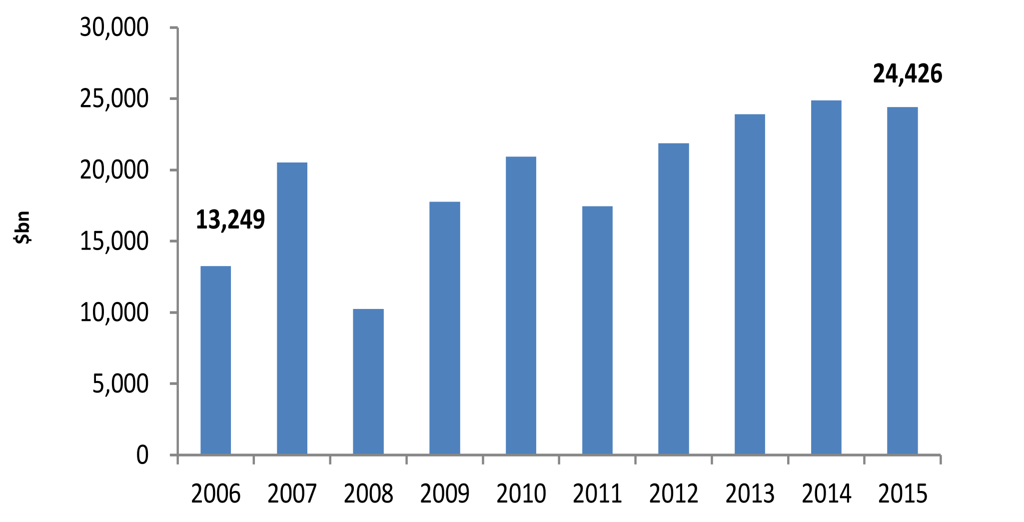


Source: HKEX

Rationale for Proposed Revision of Stock Option Position Limit

16. Hong Kong's existing position limit for stock options has been in place for a decade. Since its establishment in 1995, only one revision has taken place. Since the single revision in 2006, the market capitalisation of Hong Kong's securities market has grown substantially. Chart 2 below shows the market capitalisation of HKEX's securities market over the years 2006 to 2015.

Chart 2. Market capitalisation of HKEX's securities market at year-end



Source: HKEX

17. Over the past decade, capitalization of Hong Kong's cash market has grown 84 per cent from $13.3 trillion in 2006 to $24.4 trillion in 2015. Significant growth of the cash market has also led to rising demand for derivatives products. A well developed derivatives market would support the growth of the cash market as it provides tools for market participants to manage the market risks inherent in the cash market. However, some market participants noted that the present level of position limit is a key constraint for them to utilize the exchange platform.

18. The Financial Services Development Council (FSDC) recently commented in its paper "Hong Kong's Position Limits Regime for Exchange-traded Derivatives – the Need for Revision" that:

"The FSDC believes that a prompt and timely refinement of the exchange-traded derivatives position limits regime would help Hong Kong maintain its global competitiveness and better realise its potential as a leading international financial centre. One benefit would be improved risk management capabilities through a deeper, more efficient and more effective derivatives market. Another benefit would be an enhancement of Hong Kong's role in China's market opening plans, with one of its unique advantages as a well-established offshore hub with international standards strengthened, where investors can gain or manage China exposure, especially for the possible A-shares inclusion in global equity benchmarks."[3]

19. Given that the last revision of the stock option position limit was a decade ago, HKEX felt a review was needed. The review considered, among other things, whether Hong Kong's stock options market has kept up with overall market growth, and how effectively it meets the trading and hedging needs of market participants.

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3 FSDC Paper No.20, *"Hong Kong's Position Limits Regime for Exchange-traded Derivatives – the Need for Revision"*, (February 2016), paragraph 8, page 2.

Existing Stock Option Position Limit Model

20. Currently, market capitalisation and liquidity of the underlying stock are considered when setting HKEX's position limit for new stock options contracts. There are two tiers, one at 50,000 contracts and the other one at 30,000 contracts. Under the current regime, there is no mechanism for reviews on a regular basis.

21. HKEX's existing methodology to determine a stock option's position limit is as follows:

    If the contract-equivalent number, calculated from the higher of criteria (a) or (b) below, is lower than 50,000 contracts, the position limit may be set at 30,000 contracts; otherwise the position limit may be set at 50,000 contracts:

    (a) 2.5 per cent of the number of outstanding shares of the underlying securities or 10 per cent of the past six-month trading volume of the underlying securities, whichever is the lower; or

    (b) 7.5 per cent of the past six-month trading volume of the underlying securities.

    Details of HKEX's existing stock option position limit model are in Appendix II.

    The table below shows three examples.

Table 1: Examples of HKEX's stock option position limit under the existing model

Underlying stock (stock code)	Outstanding shares* ('000 contracts)	6-month turnover of underlying shares* ('000 contracts)		Projected contract equivalent number ('000 contracts)	Position limit ('000 contracts)
	2.50%	10%	7.50%		
Bank of China (3988)	2,091	4,597	3,447	3,447	50
Agricultural Bank of China (1288)	77	219	164	164	50
Cheung Kong Property (1113)	279	145	109	145	50

Source: HKEX, as of 31 December 2015

* The numbers of shares are expressed per contract size. The contract sizes of Bank of China (3988), Agricultural Bank of China (1288) and Cheung Kong Property (1113) are 1,000, 10,000 and 1,000 shares respectively.

Issues with Existing Stock Option Position Limit Model

22. HKEX's review of the existing stock option position limit regime found some technical issues. They are as follows:

(a) One-size-cannot-fit-all

Under the existing regime, most option classes are assigned the position limit of 50,000 contracts (the cap set by the statutory limit). Although market capitalisation and liquidity of the underlying stock are considered in setting the position limit for a new stock options contract, the statutory 50,000 limit has effectively served as a cap in most cases. As a result, 80 out of the 84 stock option classes are assigned a position limit of 50,000 contracts under the current regime, a de facto single limit. Due to the large diversity in prices, board lots and market capitalisation of the underlying stocks, the existing stock option position limit regime does not accommodate all the 84 stock option classes very well. As a result, the ratio of position limit to market capitalisation of single stock options ranges from 0.02 per cent (CCB) to 5.11 per cent (Yanzhou Coal Mining), while the notional value of the position limit ranges from $43 million (Esprit) to $5,230 million (CK Hutchison). The ratios for some popular stock option classes are shown in Table 2 below.

Table 2. Position limit to market capitalisation ratio – selected HKEX stock options

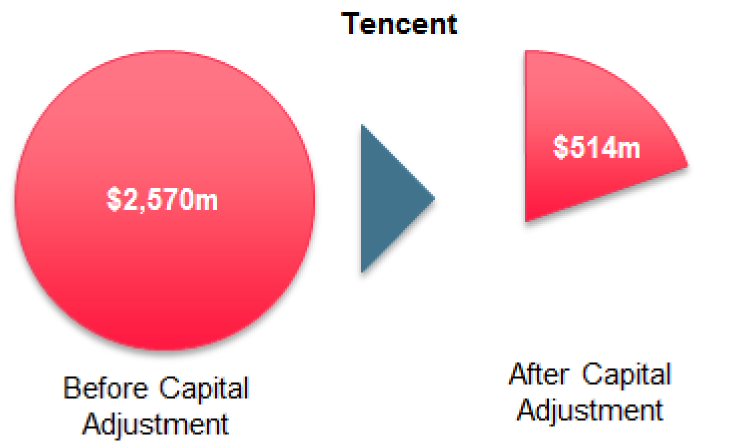
Underlying stock (stock code)	Stock option position limit, notional value	Ratio of position limit to market capitalisation
CCB (939)	$270m	0.02
ICBC (1398)	$235m	0.06
Tencent (700)	$640m	0.05
CNOOC (883)	$426m	0.11
HKEX (388)	$921m	0.41
Yanzhou Coal (1171)	$362m	5.11
Source: HKEX, as of 31 December 2015		

With such sharp differences, the position limits seem unfair and lacking in coherence from a regulatory angle.

(b) No regular review mechanism

The current position limit regime does not have a regular review mechanism to cater for material changes in the market capitalisation and liquidity of the underlying stock. There is also no mechanism for periodic reviews of the regime's effectiveness as the market develops over time. As a result, the market may be subject to restrictions that are no longer suitable. The lack of an adjustment mechanism for corporate actions that affect the underlying stocks, such as stock split or reduction in board lot size, is another concern. The following Figure 1 shows how investors face a reduction of the position limit in notional terms when there is a stock split.

Figure 1. Effect of capital adjustment on notional value of position limit



Source: HKEX

Notional value of position limit of Tencent dropped 80 per cent due to 1 to 5 share split in 2014

The above example illustrates Tencent's 1 to 5 share split in 2014. After the split, the notional value[4] of Tencent stock options was reduced to 20 per cent of the previous value to reflect the adjusted price of the underlying shares, which was 20 per cent of the previous price (assuming no change in market conditions).

International Experience

23. Looking at overseas markets, a number of mature derivatives markets, such as the Australian Securities Exchange and Euronext, do not impose a position limit on stock options. At exchanges with a position limit, the limit is more relaxed than Hong Kong's limit. Also, it is common for the position limit to be determined by formulae that account for changes in the market capitalisation and trading volume of the underlying stocks. Table 3 below shows a comparison of the position limit for major stock options markets.

[4] Notional value of stock options contract = contract size x stock price, where contract size is mostly set at 1 board lot.

Table 3. Comparison of position limit in major stock options markets				
Exchange	**Stock Options**			
	With position limit	**Position limit (per option class)**	**Methodology**	**Regular review**
HKEX	Yes	30,000 - 50,000 contracts	Formulae based & 2 tiers (de facto single tier)	No
CBOE (United States)	Yes	25,000 - 250,000 contracts	Formulae based & 5 tiers	Yes
Eurex (Europe)	Yes	25% of free float	Formulae based & variable limit	Yes
BM&FBOVESPA (Brazil)	Yes	4% of free float	Formulae based & variable limit	No
ASX (Australia)	No	N/A		
Euronext (Europe)	No	N/A		
Source: Respective exchange websites				

24. As shown in the table above, a formulaic approach is common. For example, at Eurex, the position limit applied to stock options is 25 per cent of the free float shares of the underlying stock. That means that options with underlying stocks that are more liquid have a higher position limit, since the free float methodology excludes locked-in shares and only counts the number of shares that are readily available in the market. In the United States, the position limit is based on the market capitalisation, turnover and outstanding shares of the underlying stock. For stocks in the "large cap and most frequently traded" group, the stock options have a position limit of 250,000 contracts in one side of the market. For stocks with a smaller market cap and lower turnover, the limit is 200,000, 75,000, 50,000 or 25,000 contracts. For example, the position limit for stock options with underlying stocks that had trading volume of at least 100 million shares over the past six months is 250,000 contracts. At the lower end, if the underlying stock has less than 15 million outstanding shares, the position limit for the stock options is 25,000 contracts. Applying these parameters helps the market meet the hedging needs of its participants.

25. In some markets, the limit is variable, while other markets have a tier system. Markets that can set a different position limit for stock options with different underlying stocks, such as Eurex, can provide tailor-made limits, according to advocates of that approach. Those who favour a tier system like the one at CBOE cite its advantages from the administrative and operational perspectives. The position limit regimes in both markets are subject to regular reviews that help ensure they are adjusted when necessary to keep them in line with the market as its conditions change.

Way Forward

26. As mentioned above, Hong Kong's stock option position limit regime has not been revised for a decade. Given the rapid development of the market in recent years, a revision of the regime needs to be considered. If there are no changes, the stock options offered by HKEX may cease to be effective trading and hedging tools. Some market participants have said a more accommodative position limit regime is required to maintain Hong Kong's competitiveness as an international risk management and financial centre.

27. This Consultation Paper sets out the rationale for and the details of HKEX's proposed revision of its stock option position limit. Market participants, as well as others who wish to express their views, are encouraged to provide feedback on HKEX's proposal. As HKEX's position limit cannot exceed the statutory position limit, and the statutory position limit is prescribed in the SFO and enforced by the SFC, HKEX will discuss the feedback it receives with the SFC after the consultation has been completed.

CHAPTER 2: PROPOSED MODEL FOR STOCK OPTION POSITION LIMIT

28. This chapter sets out details of the proposed model for HKEX's stock option position limit model for consultation.

Three-tier System

29. HKEX proposes a three-tier system for its stock option position limit. Under the proposal, the position limit is set with reference to the market capitalization and liquidity of the underlying stocks. Details of the methodology are described below.

30. The position limit under the three-tier system is 50,000, 100,000 or 150,000 contracts. If the contract-equivalent number is equal to or higher than 150,000 contracts, the position limit would be set at 150,000 contracts. If the contract-equivalent number is equal to or higher than 100,000 but lower than 150,000 contracts, the position limit would be set at 100,000 contracts. If the contract-equivalent number is lower than 100,000 contracts, the position limit would be set at 50,000 contracts. The tiers are illustrated in the following table.

Tier	Contract-equivalent number (X)	Proposed position limit*
1	150,000 contracts ≤ X	150,000 contracts
2	100,000 ≤ X < 150,000 contracts	100,000 contracts
3	X < 100,000 contracts	50,000 contracts

**On the basis of existing practice: the number of open contracts per option class in any one market direction for all expiry months combined*

31. The contract-equivalent number[5] is calculated based on the number of outstanding shares and turnover of the underlying stocks. It is determined by the followings:

    5 per cent of the outstanding shares, provided that it is not:

    - lower than 25 per cent of the stock's turnover for the past six months;

    - higher than 33 per cent of the stock's turnover for the past six months.

    Otherwise, if 5 per cent of outstanding shares is lower than the 25 per cent threshold, the contract-equivalent number is set at the 25 per cent of the stock's turnover for the past six months; or if 5 per cent of outstanding shares is higher than the 33 per cent threshold, the contract-equivalent number is set at the 33 per cent of the stock's turnover for the past six months.

[5] Contract-equivalent number refers to the number of shares calculated from formula above, and then divided by the contract size. Contract size of most stock options is 1 board lot.

32. The rationale for the 25 per cent threshold is to cater for underlying stocks with above average[6] trading. In those cases, 25 per cent of the past six months' turnover of the stock will be used to determine the position limit.

33. For underlying stocks with below average trading, setting the position limit at 5 per cent of outstanding shares might be too large from the liquidity perspective. If so, the limit will be set at 33 per cent the stock's turnover in the past six months.

Prudence Measures

34. In practice, the contract-equivalent number for some stock options with a small contract size might be well beyond the tier 1 position limit level of 150,000 contracts. As a result, 150,000 contracts is the top level in the proposed model, with a view toward a conservative start if changes are made.

35. The calculation of the contract-equivalent number is subject to an additional liquidity threshold at 6.7 per cent of the past six months' turnover of the underlying stock if the model is adopted. This is to ensure a smooth transition and prevent speculative positions concentrated in any single expiry month from having an impact on liquidity. The liquidity threshold could be revised from time to time as deemed appropriate by HKEX.

36. Examples of the calculation of the stock option position limit under the proposed model are shown in the table below.

Table 4: Examples of HKEX's stock option position limits under the proposed model

Underlying stock (stock code)	Outstanding shares* ('000 contracts)	6-month turnover of underlying shares* ('000 contracts)		Projected contract equivalent number ('000 contracts)	Position limit liquidity threshold	Projected contract equivalent number with liquidity threshold ('000 contracts)	Proposed position limit ('000 contracts)
	5%	33%	25%		6.7% of 6m turnover* ('000 contracts)		
Bank of China (3988)	4,181	15,169	11,492	11,492	3,064	3,064	150

6 The average market turnover velocity (i.e., the ratio of the past six months' turnover to outstanding shares) in Hong Kong is 20 per cent. Thus, on average, 25 per cent of the past six months' turnover is equivalent to 5 per cent of outstanding shares. If 25 per cent of a stock's turnover for the past six months is more than 5 per cent of its outstanding shares, its market turnover velocity is above the market average.

Agricultural Bank of China (1288)	154	722	547	547	146	146	100
Cheung Kong Property (1113)	558	480	364	480	97	97	50
Source: HKEX, as of 31 December 2015							

* The numbers of shares are expressed per contract size. The contract sizes of Bank of China (3988), Agricultural Bank of China (1288) and Cheung Kong Property (1113) are 1,000, 10,000 and 1,000 shares respectively.

Review Mechanism

Regular review

37. The proposed model includes regular reviews. They will be conducted at the end of each November, and the results will be announced in the following December. If revisions are necessary, they will take effect on 1 April of the following year to provide a buffer for investors to unwind any excess positions.

For corporate action

38. The proposed model also includes a mechanism for reviews in connection with corporate actions. Following a corporate action, such as a share split, that affects the underlying stock, HKEX may consider adjusting the contract size of the affected stock option to maintain the notional value of the option contract. Adjustments will take effect immediately on the effective date of the corporate action.

Position Limit Under Existing Regime and Proposed Model

39. As mentioned in Chapter I, two technical issues are identified under the current regime, namely (a) one-size-cannot-fit-all, and (b) no regular review mechanism. The proposed model is designed to address the two issues.

40. Under the proposed model, there are three tiers of position limits. A summary of the change of position limits when applying the model is illustrated below:

Existing Regime

Position limit	Number of option classes
50,000 contracts	80
30,000 contracts	4

Proposed Model

Position limit	Number of option classes
150,000 contracts	41
100,000 contracts	16
50,000 contracts	27

**Based on data from July to December 2015*
*** On the basis of existing practice: the number of open contracts per option class in any one market direction for all expiry months combined*

Currently, 80 out of 84 stock option classes are assigned the same position limit at 50,000 contracts, a de facto single limit. However, under the proposed model, 41 option classes are assigned 150,000 contracts, while 16 option classes are assigned 100,000 contracts and 27 option classes are assigned 50,000 contracts. Compared with the existing model, distribution of stock options is more diverse among the different tiers under the three-tier system according to the specific characteristics of the underlying stock.

41. Meanwhile, a review mechanism is introduced under the proposed model. The position limits will be reviewed regularly on an annual basis to adjust for any substantial changes due to market development. Introduction of the review mechanism enables the position limits to be adjusted on a timely basis in response to market development and corporate actions.

Consultation Questions

Q1: Do you support the revision of the current model with the introduction of a three-tier system with a review mechanism for HKEX's stock option position limit to address the issues with the existing regime? Please give reasons for your view.

Comparison with Current Regime

42. Comparing the proposed model with the current regime, there are three major differences, namely number of tiers, review mechanism, and size of position limits. The followings provide a detailed comparison of the two models.

Number of tiers

43. Under the current regime, while there are two tiers, the position limits are effectively restricted by the statutory limit. As a result, 80 out of the existing 84 stock option classes are assigned the same position limit of 50,000 contracts, a de facto single limit. In general, a de facto single limit could offer convenience from the administrative and operational perspectives. However, due to the large diversity in prices, board lots and market capitalizations of the underlying stocks, it is also likely to create the 'one-size-cannot-fit-all' problem.

44. On the other hand, there are three tiers in the proposed model. Under the proposed model, distribution of stock options is more diverse among the tiers. Looking at overseas markets where tiered models are applied, more tiers may be imposed to provide a more detailed categorization of stock options. For example, the Chicago Board Options Exchange (CBOE) applies a five-tier model on stock option position limits. However, soft market consultation indicates that market participants prefer to keep the number of tiers at a manageable level for ease of administration, since a high number of tiers may lead to frequent changes in the limit level. Therefore, HKEX proposes a three-tier system under the current market condition to strike a balance between ease of administration and catering for the diversity of underlying stocks.

Review mechanism

45. A review mechanism is introduced under the proposed model to cater for material changes in the notional value of stock options contracts due to market development and/or corporate actions. The mechanism is aimed to provide a dynamic and timely adjustment. Market participants generally supported that the review frequency be set at annually to balance the administrative and trading costs. If the review is carried out too often, substantial administrative and trading costs may be generated as market participants will need to check whether their portfolios need to be rebalanced due to the change in position limits more frequently. On the other hand, if the interval between reviews is too long, the position limits may not be adjusted in time for any material change in notional value of the stock options contracts, thus affecting its effectiveness as a hedging tool.

Size of position limits

46. Comparing with overseas markets, Hong Kong's stock option position limit is still relatively restrictive even under the proposed model. For example, in the United States, for stock options to be eligible for 250,000 options contract limit, the underlying stocks should have trading volume of at least 100 million shares over the past six months, or trading volume of at least 75 million shares over the

past six months and at least 300 million outstanding shares. It means that the ratio of position limit to 6-month turnover and the ratio of position limit to outstanding shares could be around 25-33.33 per cent[7] and 8.33 per cent[8] respectively. For Hong Kong, assuming the proposed model is applied to all stock option classes excluding exchange-traded funds, the respective ratios are only 5.10 per cent and 2.48 per cent. These ratios are still substantially lower than the levels in the United States.

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[7] The ratio of position limit to 6-month turnover = 250,000 contracts x 100 shares contract size / 6-month turnover = 25 per cent if 6-month turnover is 100 million shares, or 33.33 per cent if 6-month turnover is 75 million shares.

[8] The ratio of position limit to outstanding shares = 250,000 contracts x 100 shares contract size / 300,000,000 outstanding shares = 8.33 per cent.

Consultation Questions

Q2: Do you agree the implementation of the proposed model (three-tier system with review mechanism) would be an important step in enhancing Hong Kong's stock options market and increasing its competitiveness? Please give reasons for your view.

Q3: Do you have any comments on the proposed model? Please give reasons for your comments.

CHAPTER 3: MEASUREMENT UNIT FOR STOCK OPTION POSITION LIMIT

47. Under the current regime, HKEX's stock option position limit is expressed in terms of number of contracts. HKEX has noted that some market participants have commented that a number of contracts limit does not represent the position holder's risk accurately, and have suggested the use of position delta as the measurement unit.

48. According to one view, number of contracts may not be a scientific approach to measure the risk exposure of stock options. Those who have that view have noted that with a number of contracts limit, a person holding deep in-the-money options has the same limit as a person holding out-of-the-money options although, the risk in their option portfolios are very different.

49. Some market participants believe a more accurate and meaningful measure of the risk exposure of stock options is position delta. They say it is a more scientific approach than the number of contracts approach, as it can distinguish the risk between a deep in-the-money option versus an out-of-the-money option.

50. As a market convention, delta, a ratio that represents the change in option price in response to the change in the price of the underlying instrument, is often used to measure the risk of option portfolios. It is also the measurement unit applied when setting the position limits for HKEX's stock index futures and options.

51. If HKEX's stock option position limit is expressed in terms of position delta, the proposed three-tier system could be adjusted so that the risk exposure is in line with that of the system in HKEX's proposal. Based on market practice, the most actively traded options are at-the-money options which have a delta of 0.5. Looking at data from some up and down periods in Hong Kong's stock options market in 2015, the average of delta level in the market was around 0.4. Therefore, it may be fair to apply an adjustment factor of 0.5 to the three-tier system if position delta is applied as the measurement unit.

52. The revised three-tier position limit model, expressed in terms of position delta, will become as follows:

Tier	Approach A	Approach B
	Three-tier system's position limit in terms of number of contracts*	**Three-tier system's position limit in terms of position delta****
1	150,000 contracts	75,000 position delta
2	100,000 contracts	50,000 position delta
3	50,000 contracts	25,000 position delta

** On the basis of existing practice: the number of open contracts per option class in any one market direction for all expiry months combined*

*** On the basis of the number of open contracts per option class for all expiry months combined*

53. Overseas exchanges with a stock option position limit set their limit in terms of number of contracts, which suggests number of contracts is the norm when setting a stock option position limit.

54. To better understand market views on the topic, HKEX conducted a soft consultation that found most market participants are in favour of keeping the current approach and continuing to use number of contracts as the measurement unit for HKEX's stock option position limit. If there are changes, keeping the current approach would be an advantage in terms of impact on operations, market participants' familiarity of the regime and participants' compliance.

55. Based on the feedback from the soft consultation, HKEX intends to continue using number of contracts as the measurement unit for its stock option position limit, whether it is set under the current regime or the revised model HKEX has proposed.

CHAPTER 4: POSSIBLE MARKET CONCERNS ON PROPOSED STOCK OPTION POSITION LIMIT MODEL AND HKEX RESPONSE

56. In this chapter, possible market concerns about HKEX's proposed stock option position limit model are set out and addressed.

57. **Concern: Given the top stock option position limit under the proposed model is much higher than the current top limit, are there any measures to address the potential risks that may arise from a higher top limit?**

    HKEX has measures to manage the risk of position accumulation in its stock options market. For example, there are large open position (LOP) reporting requirements to minimise the potential impact of the stock options market on financial market stability and to facilitate market surveillance. HKEX is working now on enhancements to improve the security and efficiency of the LOP reporting system.

    HKEX has other risk management measures as well, including margin requirements, Reserve Fund, etc. To better manage the relevant exposure of Clearing Participants (CPs) under stress market conditions, HKEX's clearing house for stock options (the clearing house) recently revised its concentration risk policy. For example, a tiered additional margin rate structure (20 – 50 per cent) was introduced to replace the flat rate of 20 per cent so as to reflect the intensifying levels of concentration risk more appropriately.

    The key risk management measures adopted by the clearing house are set out in Appendix IV.

    Also, under extraordinary market circumstances, the SFC may instruct HKEX to exercise its power to reduce the position limit for its stock options contracts to maintain orderliness of the market and to uphold market integrity.

58. **Concern: The proposed stock option position limit model may intensify exercise risk as HKEX's stock options are American style options which can be physically exercised into underlying stocks on any trading day on or before the expiry day.**

    If market situations warrant, pursuant to HKEX's clearing and trading rules, HKEX has the right to impose limitations on the number and type of contracts relating to one or more option classes or option series which may be exercised at any one time or for any period of time if, in its view, this will be in the interests of maintaining orderly trading, good risk management and clearing practices.

CHAPTER 5: TIMELINE

59. The consultation period for this Consultation Paper is five weeks and will close on 3 June 2016. HKEX will then summarize the comments received and publish consultation conclusions. As HKEX's position limit cannot exceed the statutory position limit, and the statutory position limit is prescribed in the SFO and enforced by the SFC, HKEX will discuss the results of the consultation with the SFC to determine the next step(s).

CHAPTER 6: HOW TO RESPOND TO THE CONSULTATION PAPER

60. HKEX invites written comments on the proposals made in this paper no later than 3 June 2016.

61. Responses should be made by completing and returning the questionnaire on this subject (a softcopy of which in Word format is available at http://www.hkex.com.hk/eng/newsconsul/mktconsul/Documents/cp201604q.doc), by one of the following methods:

    By mail or hand delivery to:

    Corporate Communications Department
    Hong Kong Exchanges and Clearing Limited
    12th Floor, One International Finance Centre
    1 Harbour View Street
    Central
    Hong Kong
    Re: Consultation Paper on the Proposal for Revision of the Stock Option Position Limit Model

    By fax to: (852) 2524-0149

    By e-mail to: response@hkex.com.hk
    Please mark in the subject line:
    Re: **Consultation Paper on the Proposal for Revision of the Stock Option Position Limit Model**

62. HKEX's submission enquiry number is (852) 2840-3844.

63. HKEX invites views on the proposals, supported, where appropriate, with reasons. Respondents are reminded that HKEX will publish responses on a named basis in the consultation conclusions, unless requested otherwise.

64. HKEX's policy on handling personal data is set out in Appendix V of this paper.

APPENDIX I: SFO CHAPTER 571Y ON CONTRACTS LIMITS AND REPORTABLE POSITIONS

Chapter:	571Y	**Securities and Futures (Contracts Limits and Reportable Positions) Rules**	Gazette Number	Version Date

		Empowering section	E.R. 1 of 2012	09/02/2012

(Cap 571, section 35(1))

(Enacting provision omitted—E.R. 1 of 2012)

[1 April 2003] *L.N. 12 of 2003*

(Originally L.N. 220 of 2002)

(*Format changes—E.R. 1 of 2012)

Note:
***The format of the Rules has been updated to the current legislative styles.**

Section:	1	**(Omitted as spent—E.R. 1 of 2012)**	E.R. 1 of 2012	09/02/2012

Section:	2	**Interpretation**	L.N. 228 of 2015	15/01/2016

(1) In these Rules, unless the context otherwise requires-

constitutive documents (組成文件), in relation to a collective investment scheme, means the principal documents governing the establishment of the scheme; (L.N. 228 of 2015)

exchange traded fund (交易所買賣基金) means an open-ended collective investment scheme the shares or units of which are listed or traded on a recognized stock market; (L.N. 228 of 2015)

Listing Rules (《上市規則》) means the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited made by the Stock Exchange Company;

offering document (要約文件), in relation to a collective investment scheme, means a document-

(a) inviting participation in the scheme by prospective shareholders or prospective unit holders of the scheme; and

(b) containing information relating to the establishment or administration of the scheme; (L.N. 228 of 2015)

open-ended collective investment scheme (開放式集體投資計劃) means a collective investment scheme the shares or units of which may be repurchased or redeemed at the request of any of its shareholders or unit holders-

(a) at a price calculated wholly or mainly by reference to the net asset value of the scheme; and

(b) in accordance with the frequency for repurchase or redemption, requirements and procedures set out in the offering document or constitutive documents of the scheme; (L.N. 228 of 2015)

prescribed limit (訂明上限), in relation to a futures contract or a stock options contract, means the limit on the number of contracts prescribed for it under section 5;

reportable position (須申報的持倉量) means an open position in futures contracts or stock options contracts the number of which is-

(a) in the case of a futures contract specified in column 2 of Schedule 1, in excess of that specified opposite to it in column 4 of that Schedule; and

(b) in the case of a stock options contract specified in column 2 of Schedule 2, in excess of that specified opposite to it in column 4 of that Schedule.

(9 of 2012 s. 55)

(2) For the purposes of these Rules, a reference to control, in relation to futures contracts or stock options contracts, shall be construed as a reference to control of such futures contracts or stock options contracts, either directly or indirectly.

Section:	3	**Application**	E.R. 1 of 2012	09/02/2012

These Rules apply to futures contracts and stock options contracts that are traded through the facilities of a recognized exchange company in accordance with the rules of the recognized exchange company.

Section:	4	**Restrictions on number of contracts held or controlled**	E.R. 1 of 2012	09/02/2012

(1) No person, other than a person referred to in subsections (2) and (4), may hold or control futures contracts or stock options contracts in excess of the prescribed limit.

(2) A person specified in subsection (3) may be authorized under the rules of the recognized exchange company concerned to hold or control futures contracts or stock options contracts in excess of the prescribed limit.

(3) A person who may be authorized for the purposes of subsection (2) is-

(a) a person registered with the Futures Exchange Company for the purpose of performing market making or liquidity providing activities in respect of futures contracts in accordance with its rules;

(b) a person registered with the Stock Exchange Company for the purpose of performing market making or liquidity providing activities in respect of stock options contracts in accordance with its rules;

(c) an issuer of securities listed under Chapter 15A of the Listing Rules who holds or controls futures contracts or stock options contracts in the course of hedging the risks of positions previously acquired in such listed securities for the purpose of performing liquidity providing activities in respect of such listed securities; or

(d) a related corporation of an issuer of securities listed under Chapter 15A of the Listing Rules, where the related corporation holds or controls futures contracts or stock options contracts in the course of hedging the risks of positions previously acquired in such listed securities for the purpose of performing liquidity providing activities in respect of such listed securities.

(4) A person may hold or control a futures contract or stock options contract in excess of the prescribed limit if-

(a) the person-

(i) is authorized under subsection (5) to hold or control such excess; or

(ii) is authorized under subsection (6) to hold or control such excess;

(b) the Commission is satisfied that the excess would not be prejudicial to the interest of the investing public having regard to the prescribed limit and the liquidity of the futures contract or stock options contract in question; and

(c) the Commission has given the person notice in writing that it is satisfied-

(i) where paragraph (a)(i) applies, of the matters referred to in paragraph (b) and subsection (5); or

(ii) where paragraph (a)(ii) applies, of the matters referred to in paragraph (b) and subsection (7)(a), (b) and (c). (L.N. 198 of 2007)

(5) The Commission may authorize a person, other than a person who may be authorized under subsection (3), to hold or control a futures contract or stock options contract in excess of the prescribed limit if the Commission is satisfied that there are special circumstances which warrant the person holding or controlling such excess. (L.N. 198 of 2007)

(6) Subject to subsections (7) and (8), the Commission may authorize an exchange participant or an affiliate of an exchange participant to hold or control a specified contract in excess of the prescribed limit by up to the specified percentage. (L.N. 198 of 2007)

(7) The Commission shall not authorize an exchange participant or an affiliate of an exchange participant to hold or control a specified contract in excess of the prescribed limit unless the exchange participant satisfies the Commission that-

(a) the exchange participant or the affiliate (as the case may be) has a relevant business need for holding or controlling the excess for which authorization is sought; (L.N. 241 of 2007)

(b) either the exchange participant or the affiliate has adequate financial capability to cover the potential risks arising from such excess; and

(c) the exchange participant has effective internal control procedures and risk management systems to manage the potential risks arising from such excess. (L.N. 198 of 2007)

(8) The Commission shall not grant an authorization under subsection (6) if holding or controlling the excess for which authorization is sought may be authorized under the rules of the recognized exchange company concerned as referred to in subsection (2). (L.N. 198 of 2007; L.N. 241 of 2007)

(9) An authorization granted under subsection (5) or (6)-

(a) subject to paragraph (b), shall be valid for such period as the Commission may specify in the notice given under subsection (4)(c);

(b) may be withdrawn by the Commission, at any time, by at least 5 business days' notice in writing to the person authorized and, where the person authorized is an affiliate of an exchange participant, also to the exchange participant; and

(c) shall be subject to such reasonable conditions as the Commission may specify in the notice given under subsection (4)(c) and the Commission may, at any time, by at least 5 business days' notice in writing to the person authorized and, where the person authorized is an affiliate of an exchange participant, also to the exchange participant, amend or revoke any such condition or impose new conditions as may be reasonable in the circumstances. (L.N. 198 of 2007)

(10) In this section-

adequate financial capability (充足財政能力), in relation to an exchange participant or an affiliate of an exchange participant, means such exchange participant or affiliate or his holding company having-

(a) a net asset value of not less than $2 billion as set out in his or its latest audited financial statements; or

(b) a qualifying credit rating;

affiliate (聯繫人), in relation to an exchange participant, means any corporation belonging to the same group of companies as the exchange participant;

relevant business need (相關業務需要), in relation to an exchange participant or an affiliate of an exchange participant, means a business need that requires such exchange participant or affiliate to engage in hedging activities to facilitate the provision of services to his clients;

specified contract (指明合約) means any of the following futures contracts or stock options contracts-

(a) Hang Seng Index futures and options contracts;

(b) Hang Seng China Enterprises Index futures contracts and options contracts; (L.N. 241 of 2007)

specified percentage (指明百分率) means 50%. (L.N. 241 of 2007)

(L.N. 198 of 2007)

(11) (Added L.N. 198 of 2007 and repealed L.N. 241 of 2007)

Section:	5	**Prescribed limits**	E.R. 1 of 2012	09/02/2012

For the purposes of section 4(1), the limit on the number of contracts that may be held or controlled is-

(a) in the case of a futures contract specified in column 2 of Schedule 1, that specified opposite to it in column 3 of that Schedule; and

(b) in the case of a stock options contract specified in column 2 of Schedule 2, that specified opposite to it in column 3 of that Schedule.

Section:	6	**Notice of reportable positions**	9 of 2012	04/05/2012

(1) Any person who holds or controls a reportable position shall lodge a notice in writing of that reportable position with the recognized exchange company concerned within one business day following- (9 of 2012 s. 56)

(a) the day on which the person first holds or controls that reportable position; and

(b) each succeeding day on which the person continues to hold or control that reportable position.

(2) A notice referred to in subsection (1) shall be accompanied by the following information-

(a) the number of futures contracts or stock options contracts held or controlled by the person in respect of the reportable position in each relevant contract month; and

(b) if the reportable position is held or controlled for another person—

(i) the identity of that person; and

(ii) the number of futures contracts or stock options contracts held or controlled for such person in respect of the reportable position in each relevant contract month. (L.N. 35 of 2004)

Section:	7	**Compliance by certain persons**	E.R. 1 of 2012	09/02/2012

(1) In their application to a person holding or controlling futures contracts or stock options contracts for any other person, the prescribed limits and reportable positions apply separately to any futures contracts or stock options contracts held or controlled by the first person—

(a) for his own account; and

(b) for each other person.

(2) For the purposes of subsection (1), a person shall not be regarded as holding or controlling futures contracts or stock options contracts for another person if he has discretion in relation to those futures contracts or stock options contracts.

(3) For the purposes of subsection (2), a person shall be regarded as having discretion in relation to futures contracts or stock options contracts he holds or controls for another person if—

(a) he may originate orders to acquire or dispose of any of the futures contracts or stock options contracts under a general authorization from the other person, whether the authorization is pursuant to a written agreement, power of attorney or otherwise; and

(b) such authorization enables the first person to make specific acquisitions or disposals without requiring further consent or instruction from the other person.

(L.N. 35 of 2004)

Section:	8	**Penalties**	E.R. 1 of 2012	09/02/2012

Any person who, without reasonable excuse, fails to comply with section 4(1) or 6 commits an offence and is liable-

(a) on conviction on indictment to a fine at level 6 and to imprisonment for 2 years; or

(b) on summary conviction to a fine at level 3 and to imprisonment for 6 months.

Schedule:	1	**Prescribed Limit and Reporting Level for Futures Contracts**	L.N. 228 of 2015	15/01/2016

[sections 2(1) & 5(a)]

Item	Futures contract	Prescribed limit	Reporting level
1.	Stock futures contracts on shares listed on a stock market operated by the Stock Exchange Company	5000 open contracts for any one contract month	1000 open contracts for any one contract month
2.	Three-Month Hong Kong Interbank Offered Rate futures contract	Nil	1000 open contracts for any one contract month; 4000 open contracts for all contract months
3.	One-Month Hong Kong Interbank Offered Rate futures contract	Nil	1000 open contracts for any one contract month; 4000 open contracts for all contract months
4.	Hang Seng Index futures and options contracts, and Mini-Hang Seng Index futures contracts and options contracts	10000 long or short position delta limit for all contract months combined, provided the position delta for the Mini-Hang Seng Index futures contracts or Mini-Hang Seng Index options contracts shall not at any time exceed 2000 long or short for all contract months combined	500 open Hang Seng Index futures contracts for any one contract month; 500 open Hang Seng Index options contracts for any one series; 2500 open Mini-Hang Seng Index futures contracts for any one contract month and 2500 open Mini-Hang Seng Index options contracts for any one series
5.	Hang Seng China Enterprises Index futures contracts and options contracts, and Mini-Hang Seng China Enterprises Index futures contract	12000 long or short position delta limit for all contract months combined, provided the position delta for the Mini-Hang Seng China Enterprises Index futures contracts shall not at any time exceed 2400 long or short for all contract months combined	500 open Hang Seng China Enterprises Index futures contracts for any one contract month; 500 open Hang Seng China Enterprises Index options contracts for any one series and 2500 open Mini-Hang Seng China Enterprises Index futures contracts for any one contract month
6.	Hang Seng China H-Financials Index futures contract	10000 long or short position delta limit for all contract months combined	500 open contracts for any one contract month
7.	Gold futures contract	Nil	500 open contracts for any one contract month
8.	Three Year Exchange Fund Note (EFN) futures contract	5000 open contracts for any one contract month except that the limit for the spot month contract during the last 6 trading days is 1000 open contracts	1000 open contracts for any one contract month except that the reportable position for the spot month contract during the last 6 trading days is 200 open contracts
9.	FTSE/Xinhua China 25 Index futures and options contracts	6000 long or short position delta limit for all contract months combined	500 open FTSE/Xinhua China 25 Index futures contracts for any one contract month and

			500 open FTSE/Xinhua China 25 Index options contracts for any one series
10.	HSI Dividend Point Index futures contract	Nil	1000 open contracts for any one contract month
11.	HSCEI Dividend Point Index futures contract	Nil	1000 open contracts for any one contract month
12.	HSI Volatility Index futures contract (L.N. 13 of 2013)	10000 open contracts for any one contract month	1000 open contracts for any one contract month
13.	US Dollar vs Renminbi (Hong Kong) futures contract (L.N. 13 of 2013)	8000 net long or short contracts for all contract months combined except that the limit for the spot month contract during the last 5 trading days is 2000 open contracts	500 open contracts for any one contract month
14.	London Copper Mini futures contract (L.N. 228 of 2015)	50000 net long or short contracts for all contract months combined	500 open contracts for any one contract month
15.	London Aluminium Mini futures contract (L.N. 228 of 2015)	25000 net long or short contracts for all contract months combined	500 open contracts for any one contract month
16.	London Zinc Mini futures contract (L.N. 228 of 2015)	25000 net long or short contracts for all contract months combined	500 open contracts for any one contract month
17.	Stock futures contracts on shares or units of exchange traded funds (L.N. 228 of 2015)	5000 open contracts for any one contract month	1000 open contracts for any one contract month

(Schedule 1 replaced L.N. 117 of 2011)

Schedule:	2	**Prescribed Limit and Reporting Level for Stock Options Contracts**	L.N. 228 of 2015	15/01/2016

[sections 2(1) & 5(b)]

Item	Stock options contract	Prescribed limit	Reporting level
1.	Stock options contracts on shares listed on a stock market operated by the Stock Exchange Company	50000 open contracts per option class in any one market direction for all expiry months combined	1000 open contracts per option class per expiry month
2.	Stock options contracts on shares or units of exchange traded funds (L.N. 228 of 2015)	50000 open contracts per option class in any one market direction for all expiry months combined	1000 open contracts per option class per expiry month
3-4.	(Repealed L.N. 228 of 2015)		

(Schedule 2 replaced L.N. 117 of 2011)

APPENDIX II: EXISTING MODEL FOR HKEX'S STOCK OPTION POSITION LIMIT

1. Position limit is defined as the maximum number of futures or options contracts that may be held or controlled by a person or institution. The position limits for exchange-traded futures and options are statutory in Hong Kong. They are prescribed in the SFO and enforced by the SFC. Breaches are criminal offences which are subject to a fine and/or imprisonment. As stipulated in the SFO, the existing position limit for stock options is 50,000 open contracts per option class in any one market direction for all expiry months combined.

2. Meanwhile, HKEX's rules set out the maximum position that EPs and their clients can hold, but the exchange's position limit must not exceed the statutory position limit. Currently, there are two tiers of exchange-imposed stock option position limits: 50,000 and 30,000 open contracts.

3. Under the existing regime, market capitalisation and liquidity of the underlying securities are considered when setting HKEX's position limit for new stock options contracts. Details of the methodology are as follows.

4. If the contract-equivalent number, calculated from the higher of criteria (a) or (b) below, is lower than 50,000 contracts, the position limit may be set at 30,000 contracts; otherwise the position limit may be set at 50,000 contracts:

   (a) 2.5 per cent of the number of outstanding shares of the underlying securities or 10 per cent of the past six-month trading volume of the underlying securities, whichever is the lower; or

   (b) 7.5 per cent of the past six-month trading volume of the underlying securities.

5. Here is a hypothetical example to illustrate the calculation of the position limit.

   Assume the followings for Stock A:

Contract size	1,000 shares
No. of outstanding shares	3,000,000,000 shares
Past six-month trading volume	800,000,000 shares

   Then,

   2.5% of Outstanding shares / Contract size
   = 3,000,000,000 x 2.5% / 1,000 = 75,000 contracts

   10% of Past six-month trading volume / Contract size
   = 800,000,000 x 10% / 1,000 = 80,000 contracts

   7.5% of Past six-month trading volume / Contract size
   = 800,000,000 x 7.5% / 1,000 = 60,000 contracts

Therefore,

(a) = 75,000 contracts (i.e. the lower of 2.5 per cent of the number of outstanding shares or 10 per cent of the past six-month trading volume of the underlying securities);

(b) = 60,000 contracts (i.e. 7.5 per cent of the past six-month trading volume of the underlying securities); and

Contract-equivalent number = 75,000 contracts (i.e. the higher of criteria (a) and (b))

As a result, since the contract-equivalent number is higher than 50,000 contracts, the position limit of the stock options contracts of Stock A is set at 50,000 contracts.

6. At present, there are 84 stock option classes traded on HKEX. 80 of them have a position limit of 50,000 contracts, while the remaining 4 have a position limit of 30,000 contracts. There is no regular review mechanism under the existing model.

7. In addition, the LOP reporting requirements are also imposed by the SFO to facilitate surveillance of the futures and options markets. A legal person holding a position that has reached the LOP reporting level is required to notify HKEX of that position. Currently, the LOP reporting level of 1,000 open contracts per option class per expiry month is applicable to all stock options contracts. As this reporting level can capture all of the LOP held by investors and market participants, it helps HKEX to monitor closely before building up of large positions.

APPENDIX III: HOW OVERSEAS EXCHANGES DETERMINE THEIR STOCK OPTION POSITION LIMITS

1. Below table shows some examples of methodologies of stock option position limit determination in overseas exchanges.

	Methodology	Review
BM& FBOVESPA	Grand Total of all Positions: 4% of free float. Each authorized Series (Call and Put): 2% of free float. Grand Total of all Naked Positions: 2% of free float. Total of each authorized Series of Naked Positions: 1% of free float.	The Exchange may review the limits from time to time.
US Exchanges	**Position Limits:** By referencing the most recent 6-month trading volume of underlying security (6MTV) and the outstanding shares (O/S) To be eligible for the 250,000 options contract limit: either: i) 6MTV must have at least 100,000,000 shares; or ii) 6MTV must have at least 75,000,000 shares and O/S at least 300,000,000 shares To be eligible for the 200,000 options contract limit: either: i) 6MTV must have at least 80,000,000 shares; or ii) 6MTV must have at least 60,000,000 shares and O/S at least 240,000,000 shares To be eligible for the 75,000 options contract limit: either: i) 6MTV must have at least 40,000,000 shares; or ii) 6MTV must have at least 30,000,000 shares and O/S at least 120,000,000 shares To be eligible for the 50,000 options contract limit: either: i) 6MTV must have at least 20,000,000 shares; or ii) 6MTV must have at least 15,000,000 shares and O/S at least 40,000,000 shares	The Exchanges carry out semi-annual review on the position limits.

	The 25,000 options contract limit applies to those options having an underlying security that does not meet the requirements for a higher options contract limit.	
Montreal Exchange	**Position Limits:** By referencing the most recent 6-month trading volume of underlying security (6MTV) and the outstanding shares (O/S) To be eligible for the 250,000 options contract limit: either: i) 6MTV must have at least 100,000,000 shares; or ii) 6MTV must have at least 75,000,000 shares and O/S at least 300,000,000 shares To be eligible for the 200,000 options contract limit: either: i) 6MTV must have at least 80,000,000 shares; or ii) 6MTV must have at least 60,000,000 shares and O/S at least 240,000,000 shares To be eligible for the 75,000 options contract limit: either: i) 6MTV must have at least 40,000,000 shares; or ii) 6MTV must have at least 30,000,000 shares	The Exchange carries out quarterly review on the position limits and in the case of a stock split, the Exchange may establish special position and exercise limits which may reflect the basis of the stock split.

	and O/S at least 120,000,000 shares To be eligible for the 50,000 options contract limit: either: i) 6MTV must have at least 20,000,000 shares; or ii) 6MTV must have at least 15,000,000 shares and O/S at least 40,000,000 shares The 25,000 options contract limit applies to those options having an underlying security that does not meet the requirements for a higher options contract limit.	
Eurex	**Position Limits:** Position limits for all stock options (including ETF) is fixed to 25% of the free float of the underlying stocks.	Eurex carries out semi-annual review on limit levels.

APPENDIX IV: SUMMARY OF KEY RISK MANAGEMENT MEASURES ADOPTED BY SEOCH

	Risk Measures	Details
a)	Financial requirements of Clearing Participants (CPs)	• CPs must have a minimum Liquid Capital (LC) of the higher of its required LC under the FRR[9], or $5 million for Direct Clearing Participant and $20 million for General Clearing Participant respectively.
b)	Capital-based position limit (CBPL)	• SEOCH imposes CBPL on each CP based on its latest LC to ensure the risk exposure of each CP is commensurate with its financial strength. A CP in breach of its CBPL must take remedial action to observe compliance within the timeline set by SEOCH and an additional margin equivalent to 25% of its exposure in excess of its position limits will be imposed on the CP until the breach is rectified.
c)	Daily mark-to-market and margin	• To cover current credit exposure, SEOCH marks all open stock option positions to market every day based on their respective settlement prices to calculate the mark-to-market margin for short stock option positions and margin credits[10] for fully paid long stock option positions. • To cover future credit exposure, SEOCH calculates the risk margin of CPs on a daily basis based on its assessment of the maximum potential losses of an options contract or a portfolio of options contracts. The margin requirement of an option contract or a portfolio of option contracts is equivalent to the sum of the mark-to-market margin (or margin credits) and the risk margin. • The margin requirement of each CP is assessed daily after the end of the trading session. CPs assessed with margin requirements are required to meet such obligations by 9:15 am on the following business day.
d)	Intra-day margin (IDM) call	• An IDM call will be triggered when there is a margin erosion of 50% in any stock option class during the trading sessions. The call is

[9] Securities and Futures (Financial Resources) Rules (Chapter 571N of the Laws of Hong Kong).

[10] The mark-to-market margin represents the cost of liquidating an option position. For a long option position with premium paid upfront, the mark-to-market margin is a credit.

		conducted based on the IDM calculated using CPs' real-time open positions and prevailing market prices. All IDM calls have to be settled by CPs within one hour after notification.
e)	Additional margin for concentration	• SEOCH imposes additional margins on individual CPs so as to minimize the risk arising from the over-concentration of open option positions on one or a few CPs. If the projected aggregate loss less any margin (Net Projected Loss) of a CP under stress market conditions is greater than 30% of total Net Projected Loss of all CPs[11], SEOCH will impose additional margin on such CP (ranged from 20% to 50% depending on its concentration level).
f)	Reserve fund (RF)	• SEOCH maintains a RF to meet its obligations and liabilities as a central counterparty if losses arising from one or more CPs defaults cannot be fully covered by the margin collected from the defaulting CPs. • The total RF size is determined with reference to daily stress testing results based on two key assumptions, i.e. price movements of ±22% for all stock option classes and default of the single largest CP and the fifth largest CP. Each CP is required to contribute to the RF according to their total margin and net premium paid in the most recent 20 business days. • SEOCH will demand additional contributions from CPs if the RF size is assessed to be insufficient based on the stress testing results. The required contributions from CPs are collected on the third business day from the date of the notification.

[11] No additional margin will be imposed if the Net Projected Loss of all CPs is below $500 million.

APPENDIX V: PRIVACY POLICY

Privacy Policy Statement

Hong Kong Exchanges and Clearing Limited and from time to time, its subsidiaries, affiliated companies controlling it or under common control with it and its joint ventures (each such entity, from time to time, being "**HKEX**", "**we**", "**us**" or an "**affiliate**" for the purposes of this Privacy Policy Statement as appropriate) recognises its responsibilities in relation to the collection, holding, processing, use and/or transfer of personal data under the Personal Data (Privacy) Ordinance (Cap. 486) ("**PDPO**"). Personal data will be collected only for lawful and relevant purposes and all practicable steps will be taken to ensure that personal data held by HKEX is accurate. HKEX will use your personal data in accordance with this Privacy Policy Statement.

We regularly review this Privacy Policy Statement and may from time to time revise it or add specific instructions, policies and terms. Where any changes to this Privacy Policy Statement are material, we will notify you using the contact details you have provided us with and, as required by the PDPO, give you the opportunity to opt out of these changes by means notified to you at that time. Otherwise, in relation to personal data supplied to us through the HKEX website, continued use by you of the HKEX website shall be deemed to be your acceptance of and consent to this Privacy Policy Statement.

If you have any questions about this Privacy Policy Statement or how we use your personal data, please contact us through one of the communication channels below.

HKEX will take all practicable steps to ensure the security of the personal data and to avoid unauthorised or accidental access, erasure or other use. This includes physical, technical and procedural security methods, where appropriate, to ensure that the personal data may only be accessed by authorised personnel.

Please note that if you do not provide us with your personal data (or relevant personal data relating to persons appointed by you to act on your behalf) we may not be able to provide the information, products or services you have asked for or process your request.

Purpose

From time to time we may collect your personal data such as your name, mailing address, telephone number, email address and login name for the following purposes:

1. to process your applications, subscriptions and registration for our products and services;

2. to perform or discharge the functions of HKEX and any company of which HKEX is the recognised exchange controller (as defined in the Securities and Futures Ordinance (Cap. 571));
3. to provide you with our products and services and administer your account in relation to such products and services;
4. to conduct research and statistical analysis; and
5. other purposes directly relating to any of the above.

Direct marketing

Except to the extent you have already opted out or in future opt out, we may also use your name, mailing address, telephone number and email address to send promotional materials to you and conduct direct marketing activities in relation to our financial services and information services, and related financial services and information services offered by our affiliates.

If you do not wish to receive any promotional and direct marketing materials from HKEX or do not wish to receive particular types of promotional and direct marketing materials or do not wish to receive such materials through any particular means of communication, please contact us through one of the communication channels below.

Identity Card Number

We may also collect your identity card number and process this as required under applicable law or regulation, as required by any regulator having authority over us and, subject to the PDPO, for the purpose of identifying you where it is reasonable for your identity card number to be used for this purpose.

Transfers of personal data for direct marketing purposes

Except to the extent you have already opted out or in future opt out, we may transfer your name, mailing address, telephone number and email address to our affiliates for the purpose of enabling our affiliates to send promotional materials to you and conduct direct marketing activities in relation to their financial services and information services.

Other transfers of personal data

For one or more of the purposes specified above, the personal data may be:

1. transferred to our affiliates and made available to appropriate persons in our affiliates, in Hong Kong or elsewhere and in this regard you consent to the transfer of your data outside of Hong Kong; and
2. supplied to any agent, contractor or third party who provides administrative or other services to HKEX and/or any of our affiliates in Hong Kong or elsewhere.

How we use cookies

If you access our information or services through the HKEX website, you should be aware that cookies are used. Cookies are data files stored on your browser. The HKEX website automatically installs and uses cookies on your browser when you access it. Two kinds of cookies are used on the HKEX website:

Session Cookies: temporary cookies that only remain in your browser until the time you leave the HKEX website, which are used to obtain and store configuration information and administer the HKEX website, including carrying information from one page to another as you browse the site so as to, for example, avoid you having to re-enter information on each page that you visit. Session cookies are also used to compile anonymous statistics about the use of the HKEX website.

Persistent Cookies: cookies that remain in your browser for a longer period of time for the purpose of compiling anonymous statistics about the use of the HKEX website or to track and record user preferences.

The cookies used in connection with the HKEX website do not contain personal data. You may refuse to accept cookies on your browser by modifying the settings in your browser or internet security software. However, if you do so you may not be able to utilise or activate certain functions available on the HKEX website.

Compliance with laws and regulations

You agree that HKEX and its affiliates may be required to retain, process and/or disclose your personal data in order to comply with applicable laws and regulations, or in order to comply with a court order, subpoena or other legal process, or to comply with a request by a government authority, law enforcement agency or similar body (whether situated in Hong Kong or elsewhere). You also agree that HKEX and its affiliates may need to disclose your personal data in order to enforce any agreement with you, protect our rights, property or safety, or the rights, property or safety of our affiliates and employees.

Corporate reorganisation

As HKEX continues to develop its business, we may reorganise our group structure, undergo a change of control or business combination. In these circumstances it may be the case that your personal data is transferred to a third party who will continue to operate our business or a similar service under either this Privacy Policy Statement or a different privacy policy statement which will be notified to you. Such a third party may be located, and use of your personal data may be made, outside of Hong Kong in connection with such acquisition or reorganisation.

Access and correction of personal data

Under the PDPO, you have the right to ascertain whether HKEX holds your personal data, to obtain a copy of the data, and to correct any data that is inaccurate. You may also request HKEX to inform you of the type of personal data held by it. All data access requests shall be made using the form prescribed by the Privacy Commissioner for Personal Data ("**Privacy Commissioner**") which may be found on the official website of the Office of the Privacy Commissioner.

Requests for access and correction or for information regarding policies and practices and kinds of data held by HKEX should be addressed in writing and sent by post to us (see contact details below).

A reasonable fee may be charged to offset HKEX¡¦s administrative and actual costs incurred in complying with your data access requests.

Termination or cancellation

Should your account with us be cancelled or terminated at any time, we shall cease processing your personal data as soon as reasonably practicable following such cancellation or termination, provided that we may keep copies of your data as is reasonably required for archival purposes, for use in relation to any actual or potential dispute, for the purpose of compliance with applicable laws and regulations and for the purpose of enforcing any agreement we have with you, for protecting our rights, property or safety, or the rights, property or safety of our affiliates and employees.

Contact us

By Post:
Personal Data Privacy Officer
Hong Kong Exchanges and Clearing Limited
12/F., One International Finance Centre
1 Harbour View Street
Central
Hong Kong

By Email:
pdpo@hkex.com.hk

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