

**CONSULTATION PAPER**  
**ON AFTER-HOURS FUTURES TRADING**

**May 2011**



**Hong Kong Exchanges and Clearing Limited**  
**香港交易及結算所有限公司**

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# EXECUTIVE SUMMARY

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1. Global financial markets are inter-related in many ways. Financial news and events in Europe or the US can affect Asian financial markets including Hong Kong, and vice versa. Currently, Hong Kong investors are unable to hedge or adjust their positions in HKEx's futures market outside regular trading hours in case there are major financial news or events during European or US time zones.
2. Most major securities exchanges close their securities markets after their regular trading hours, but most derivatives exchanges trade derivatives in extended after-hours trading sessions to enable hedging activities in response to market moving events at night. The trading hours of most derivatives exchanges' stock index futures markets range from 13 to 23 hours per business day, see Appendix I. The volume of after hours trading in the major overseas stock index futures amounted to 15% to 37% of the volume in their respective day sessions during the period from October 2010 to February 2011, see Appendix II.
3. Many futures brokers in Hong Kong are still open for business after the regular trading hours to offer European and US derivatives trading for their clients. At least 91 out of a total of 183 HKEx Futures Exchange Participants (EPs) (as of 11 April 2011) are involved in after-hours overseas derivatives trading business (these EPs accounting for 89% of Hang Seng Index (HSI) futures turnover or 94% of H-shares Index (HHI) futures turnover in 2010). These brokers would be well positioned to participate in the proposed after-hours trading session for the Hong Kong futures market. The availability of night trading services offered by brokers indicates that investors have trading demand during the night time.
4. The strategic and business reasons for HKEx to provide after-hours futures trading are that:
  - a) Investors will benefit from having an after-hours futures trading platform to hedge or adjust their positions in response to market news and events in the European and US time zones;
  - b) With Hong Kong becoming a Renminbi (RMB) offshore centre, after-hours trading will enable HKEx to serve international trading interest relating to RMB products in the future;
  - c) The capability for after-hours trading is a prerequisite for HKEx to support asset classes traded on a global basis including commodities and foreign exchange;
  - d) Given overseas exchange experience, after-hours futures trading should be a source of business growth; and
  - e) Over time, after-hours futures trading can attract European and US investors to participate in HKEx's derivatives market both during and after their working hours.
5. In this Consultation Paper, HKEx proposes to introduce an after-hours trading session for its futures market (T+1 Session), which would begin at 4:45 p.m. (30 minutes after the close of regular trading session or T Session) and end at 11:15 p.m. After the close of the T+1 Session, 30 minutes will be allowed for performing post-trade activities. The clearing systems will also start 1 hour earlier in the next morning, i.e. 7:45 a.m., to facilitate position management activities. The T+1 Session will not trade through mid-night and cross to the next calendar date such that system enhancements required for both EPs/Clearing

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Participants (CPs) and HKEx will be less complex. The proposed T+1 Session will cover the most active period in the European market (i.e. up to 3:15 p.m. London Winter time or 4:15 p.m. London Summer time) as well as the morning of the US market (i.e. up to 10:15 a.m. New York Winter time or 11:15 a.m. New York Summer time), though it will still be relatively short compared to those of other major derivatives exchanges (refer to Appendix I).

6. All trades transacted in the T+1 Session would be registered as T+1 trades and would be cleared and settled on the following trading day. At the initial stage, HSI futures, HHI futures and gold futures would be introduced for trading in the T+1 Session.
7. Trading, clearing and risk management arrangements would be adjusted to support after-hours futures trading. Additional measures would be implemented by HKEx to help manage the counterparty risks related to after-hours trades, which include monitoring CPs' capital-based position limits (CBPL) during the T+1 Session and the introduction of a mandatory variation adjustment and margin call to markets with T+1 Session following the market open of each regular trading session based on the Calculated Opening Prices<sup>1</sup> (e.g. variation adjustment and margin call for stock index products will be issued at 10:00 a.m. and payment should be made by 11:00 a.m.). There will be no intra-day variation adjustment or margin call during the T+1 Session. More details of the trading, clearing and risk management arrangements are set out in Part 2 and the potential issues related to after-hours futures trading are discussed in Part 3.
8. HKEx has no plan at this time to introduce after hours trading in the cash market as it is not a common practice among major stock exchanges.
9. We invite market participants and the investing public to express their views and comments on the Proposal. Respondents should reply to this Consultation Paper by completing and returning the questionnaire which is available at <http://www.hkex.com.hk/eng/newsconsul/mktconsul/Documents/cp201105q.doc> before 8 July 2011.
10. A Consultation Conclusions Paper will be issued summarising the main points made by the respondents and indicating the way forward.

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<sup>1</sup> Determined during the Pre-Market Opening Period in accordance with the rules of the Hong Kong Futures Exchange.

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# **PART 1: DEMAND FOR AFTER-HOURS FUTURES TRADING**

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## **Introduction**

11. Global financial markets are increasingly inter-related and influence one another around the clock. Major financial news and events in Europe or the US affect not only their own markets, but also Asian financial markets including Hong Kong. Currently, investors are unable to hedge or adjust their positions in HKEx's futures market outside regular trading hours in case there are major financial news or events during European or US time zones.
12. In Hong Kong, both the cash and futures markets are closed at night. Investors can only use other derivatives products in European or US markets, or Asian derivatives products that are available for trading during the Asian night time, as a proxy to hedge their exposures.
13. Most derivatives exchanges trade derivatives after-hours to facilitate hedging activities. In the US, CME Group (CME) offers after-hours trading for derivatives products from 1992. In Europe, Eurex and NYSE Liffe have had after-hours derivatives trading since 1999. Australia's ASX started after-hours derivatives trading in 1989, followed by SGX in 1996 and Japan's Osaka Securities Exchange (OSE) in 2007. The trading hours of these exchanges' stock index futures range from 13 to 23 hours per business day. A comparison of the trading hours of international derivatives exchanges is at Appendix I for reference.
14. According to our research based on exchange trading statistics, the volume of after-hours trading in major stock index futures (versus the trading volume in their respective day sessions) at CME, Eurex, NYSE Liffe, OSE, SGX and ASX ranges from 15% to 37% during the period from October 2010 to February 2011, see Appendix II.
15. In terms of total notional turnover of stock index futures in 2010, HKEx ranked fifth according to the World Federation of Exchanges (WFE); all top ten exchanges have after-hours trading for their stock index futures except for two exchanges including HKEx. (see Appendix III for details)
16. Many Hong Kong futures brokers offer overseas (Asian, European and US) derivatives trading for their clients during our night time. At least 91 out of a total 183 HKEx's Futures Exchange Participants (EPs) (as of 11 April 2011) are involved in overseas derivatives trading business (these 91 EPs accounted for 89% of HSI futures turnover or 94% of HHI futures turnover in 2010), they include:
  - a) 39 international EPs having global networks servicing their clients in different time zones (they accounted for 63% of HSI futures turnover or 86% of HHI futures turnover in 2010); and
  - b) 52 local EPs who are offering overseas derivatives trading for their clients (they accounted for 26% of HSI futures turnover or 8% of HHI futures turnover in 2010).

The broad availability of night trading services offered by brokers in Hong Kong indicates that investors have trading demands during the night time and many futures brokers are familiar with night desk operations.

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17. Overseas, there is already substantial trading interest in derivatives based on Hong Kong listed equities after Hong Kong market closes. One of the most active examples is the options on iShares FTSE China 25 Index ETF, which is based on red chips and H-shares listed in Hong Kong. These options are actively traded in 9 US options exchanges with an average daily trading volume of about 89,000 contracts in 2010 and with strong growth in recent years. The number of futures and options products on Hong Kong listed underlying stocks listed in European and US exchanges are set forth in Appendix IV.
  18. Apart from equity futures, when HKEx introduced gold futures in 2008, there were many market comments that this product should be available for trading after hours. This further shows the clear interest for an after-hours futures trading platform in Hong Kong.

### **Strategic Rationale**

19. Clearly, there is market demand for an after-hours futures trading platform, to enable investors to hedge or adjust their positions during night time in response to major financial news and events in Europe, the US and elsewhere. Nearly all derivatives exchanges already provide after hours trading and if Hong Kong does not provide the trading opportunity it will likely be provided by someone else.
20. In March 2011, the 12th Five-Year Plan for the National Economic & Social Development of the People's Republic of China explicitly supported Hong Kong becoming the Renminbi (RMB) offshore centre. When the RMB becomes a globally traded currency and RMB denominated derivatives products are traded on HKEx, after-hours futures trading capability will be vitally important for HKEx to evolve into a global RMB derivatives platform to serve the trading and hedging needs of global investors.

### **Business Rationale**

21. As mentioned in paragraph 14, from the experiences of derivatives exchanges offering after hours trading in stock index futures, the after hours trading volume amounted to 15% to 37% of the trading volume in their respective day sessions during the period from October 2010 to February 2011. This indicates that after-hours futures trading could be a source of business growth for the futures industry in Hong Kong.
22. Over time, we expect that after-hours futures trading can attract more European and US investors to participate in HKEx's futures market both during and after their working hours, which would add business for our brokers, though we expect that market participation, in the short run, would be mostly our brokers' existing clients.

### **Way Forward**

23. This Consultation Paper sets out a proposal on after-hours futures trading for comments. HKEx has no plan at this time to introduce after hours trading in the cash market as it is not a common practice among major exchanges.
24. Conducting this market consultation demonstrates HKEx's commitment to work with market participants in achieving our common goals. We ask those who support the proposal to express their support and the reasons for it along with any other ideas they may have in their comments. To extent to the proposal may be of concern to market participants

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we ask them to provide the reasons for their concerns and to provide ideas they may have to address those concerns. More details of the proposal on after-hours futures trading are provided in Part 2.

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## **PART 2: PROPOSAL FOR CONSULTATION**

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25. This part sets out the proposed operating arrangements for after-hours futures trading with regard to products, trading, clearing and risk management for market comments.

**a) Products**

At the initial stage, HSI futures, HHI futures and gold futures would be introduced for after hours trading. Subject to the development of trading liquidity in the main stock index futures contracts, mini-HSI futures and mini-HHI futures could be introduced at the next stage. Trading arrangements of the stock market will not be affected. As and when market conditions warrant, HKEx might also consider introducing other and new derivatives products for after hours trading in the future.

**b) Trading**

**i. Proposed Trading Hours**

A new trading session (T+1 Session) is proposed for the futures market. The opening time of the T+1 Session will be 30 minutes after the close of the regular trading session (T Session), i.e. 4:45 p.m. for stock index futures and 5:30 p.m. for gold futures to provide sufficient time for EPs to handle internal operations before the T+1 Session begins. Trades executed during the T+1 Session (T+1 Trades) will be registered as the following day's trades.

The T+1 Session will end at 11:15 p.m. After the close of the T+1 Session, 30 minutes will be allowed for performing post-trade activities. The T+1 Session and this 30 minutes window will not go beyond mid-night and cross to the next calendar date such that system enhancements required for both EPs/CPs and HKEx will be less complex. The proposed T+1 Session will cover the most active period in the European market (i.e. up to 3:15 p.m. London Winter time or 4:15 p.m. London Summer time), as well as the morning of the US market (i.e. up to 10:15 a.m. New York Winter time or 11:15 a.m. New York Summer time), though it will still be shorter than those of other major derivatives exchanges (refer to Appendix I).

**ii. Holiday Arrangements**

If it is a Hong Kong public holiday or there is half-day trading in the HKEx securities market, there would be no T+1 Session on that day.

**iii. Typhoon or Black Rainstorm Arrangements**

If Typhoon Signal No. 8 or a Black Rainstorm Warning is hoisted and is not lowered before 12:00 noon, there would be no T+1 Session.

**iv. Order Types**

All rest of day orders, until expiry orders and specified date orders, by default, will be effective only in T Session and outstanding orders will be carried forward to the

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next T Session and so on whilst outstanding. EPs not participating in after hours trading would not be affected.

For EPs and their clients participating in after hours trading need to select the order attribute “T+1” when entering their rest of day orders, until expiry orders and specified date orders for those orders that should be effective for both T Session and the T+1 Session. These orders with “T+1” attribute will be carried forward from T+1 Session and back into T Session and so on whilst outstanding. EPs will need to inform their clients of the implications of participating in the T+1 Session and EPs will need to ensure appropriate levels of staffing to service T+1 Session trading.

Fill-or-kill orders and fill-and-kill orders which are to be executed (or not) immediately, the order attribute “T+1” will not be applicable and will be ignored.

v. Handling of Error Trades

Existing error trade rules will apply in the T+1 Session. To reduce the potential impact of a sequence of error trades, a dynamic price banding mechanism will be introduced in HKATS for both the T and T+1 Sessions, which will reject input of buy orders with a limit price higher than the upper price band or sell orders with a limit price lower than the lower price band. The upper and lower price bands are determined according to the prevailing market price. The price bands will be recalculated when there is a material change in the prevailing market price. The HKATS will reject the entry of all limit buy/sell orders outside the upper/lower price bands that are far away from the prevailing market price.

vi. Block Trade Facility Not Applicable

At the initial stage, the Block Trade Facility will not be available in the T+1 Session. As T+1 Session at the inception will cover stock index futures and gold futures only, demand for the Block Trade Facility is expected to be limited (block trades in stock index futures contracts accounted for less than 1% of the total turnover of stock index futures in the second half of 2010). HKEx will consider introducing the Block Trade Facility when options products are available for trading in the T+1 Session.

**c) Clearing**

i. Clearing of Trades Executed in T+1 Session

T+1 Trades will be registered as the following day’s trades. Together with trades executed in the following day’s T Session, these trades will undergo the standard clearing process during the standard clearing session (T Clearing Session). With after-hours futures trading, the T Clearing Session will start 1 hour earlier than the T Session for respective futures products to provide more time for CPs to process post-trades activities before the mandatory market open variation adjustment (VA) and margin call. T Clearing Session ends at 6:45 p.m. i.e. existing System Input Cutoff Time.

In addition, a new clearing session (T+1 Clearing Session) will be introduced. The

T+1 Clearing Session will start at the same time as the T+1 Session and end 30 minutes after the close of the T+1 Session (i.e. 11:45 p.m.) to allow time for CPs to conduct post-trades activities after T+1 Session ends. The T+1 Clearing Session will offer similar services as that offered by the T Clearing Session except that position management functions (e.g. position net down) will not be available.

A comparison of time windows for existing and proposed clearing sessions is as follows:

<b>Product</b>	<b>Time Window</b>	<b>T Clearing Session</b>	<b>T+1 Clearing Session</b>
<b>HSI/HHI Futures</b>	Existing Time Window	8:45 a.m. – 6:45 p.m.	N/A
	<b><u>Proposed Time Window</u></b>	<b><u>7:45 a.m. – 6:45 p.m.</u></b>	<b><u>4:45 p.m. – 11:45 p.m.</u></b>
<b>Gold Futures</b>	Existing Time Window	8:30 a.m. – 6:45 p.m.	N/A
	<b><u>Proposed Time Window</u></b>	<b><u>7:30 a.m. – 6:45 p.m.</u></b>	<b><u>5:30 p.m. – 11:45 p.m.</u></b>

This dual clearing session arrangement enables trading during T+1 Session (whereby executed trades are registered as T+1 Trades) and day-end processing of T trades to take place concurrently. CPs can still process post-trade activities on T trades as normal during the T Clearing Session while trading can take place under T+1 Session.

ii. Position Recording

Positions will be maintained according to clearing dates and separate records are held at all times for T day and T+1 day positions. T day positions will be finalized after the end of T Clearing Session at 6:45 p.m. and subject to day-end margin calculation. T+1 day positions will be finalized after the end of T+1 Clearing Session at 11:45 p.m. These T+1 day positions will become T day opening positions on the following day, i.e. the following day's positions are made up of positions created during the T Session on that day plus trades/post-trades executed during the T+1 Session of the previous day.

d) Risk Management

In the absence of a level of banking support to facilitate intra-day call capability during the T+1 Session similar to that during the T Session, the following additional risk management measures are proposed to mitigate the counterparty risks associated with after hours futures trading.

- i. Perform monitoring of CPs' CBPL based on both the current market prices and positions at regular intervals during the T+1 Session, supplemented by ad-hoc CBPL monitoring. CPs breaching their CBPL may be requested to reduce their exposure to re-establish compliance with their CBPL and risk being disconnected

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from the HKEx trading system and closing out action should they fail to comply with such request or further increase their exposure.

- ii. A mandatory variation adjustment and margin call to markets (based on the morning Calculated Opening Prices<sup>2</sup>) with T+1 Session will be introduced following the market open of each T Session to collect by 11:00 a.m. both mark-to-market loss and margin of all positions including that created by trades in T+1 Session. The Calculated Opening Price is the equilibrium market price derived from the price discovery period of thirty minutes before the opening of the morning trading session.
- iii. There will be no intra-day variation adjustment or margin call during the T+1 Session regardless of whether there is a large price fluctuation during the T+1 Session given the proposed mandatory call described above.

Details of the risk management measures are in Appendix VI.

26. For the timeline of daily trading, clearing and risk management operational flow, please refer to Appendix V.

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<sup>2</sup> If the Calculated Opening Price is not available, market price shortly after the market open will be used.

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## **PART 3: ISSUES TO BE CONSIDERED**

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27. Introducing after-hours futures trading will have various implications to market participants. This part outlines some key issues together with our analysis for consideration. We welcome further comments on these areas.
28. **EP's Participation in After-Hours Trading Session is Optional** - EPs may have different considerations such as their clients' trading interest and operational / resources requirements. Whether to participate in the after hours trading session is a business decision for each EP to make on its own; however, we anticipate that there will be pressure from clients for those EPs that decide not to participate. For EPs which are currently offering European or U.S. derivatives trading for their clients, the after hours trading session will be an opportunity to expand their existing business with limited operational impact. For EPs currently without night desk operations, they may consider the needs of their clients and the potential business prospect and decide whether they will participate or only provide limited services to their clients in after hours trading. In any event, EPs should ensure that they observe the SFC's Code of Conduct when dealing with clients on all matters in relation to the T+1 Session.
29. **Impact on EPs that Decide not to Participate** - Should EPs/CPs decide not to participate and not to accept client's orders during and for the T+1 Session, they should ensure their clients are aware that they would not accept clients' orders during and for the T+1 Session.
30. **Impact on EPs that Decide to Provide Limited Services** – Should EPs/CPs decide to provide limited services in the T+1 Session, EPs/CPs should ensure that they could access to trade confirmation via terminals such as CLICK/BOPC, back office workstation and OAPI. EPs/CPs should ensure that their clients understand the trading arrangements e.g. the order execution and the confirmation. EPs/CPs should observe the SFC's Code of Conduct when dealing with clients on those T+1 Session orders.
31. **Operational Requirements for EPs that Decide to Participate** - EPs/CPs that decide to participate in after hours futures trading should ensure that sufficient manpower and resources are available to support the after hours futures trading and that all staff involved in after hours trading business are suitable, adequately trained and properly supervised. EPs' systems should be ready to support the functions necessary for after hours trading including trading, clearing, risk monitoring and client support. As for clearing, systems of EPs/CPs should be able to support position keeping for both the T Session and the T+1 Session.
32. **Risk Management Arrangements** - EPs/CPs that decide to participate in after hours futures trading would be expected to closely monitor their trading activities, including those of their clients, as well as their CBPL during the T+1 Session. Moreover, all CPs including those not participating in after hours trading will be required to comply with the clearing house's mandatory variation adjustment and margin call following the market open of each regular trading session. See Appendix VI. Many derivatives exchanges, such as CME and SGX, also have more than one mandatory variation adjustment and margin calls per day, i.e. 2 times in CME and 4 times in SGX.
33. **Potential Administrative and Financial Burdens** - EPs/CPs, and in particular those are not currently conducting after hours trading, may have concern over the potential added administrative and financial burden that may arise under the proposed mandatory variation adjustment and margin call following the market open of each regular trading session. Our view is that this proposed measure not only conforms to sound risk management practices

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adopted by international clearing houses in handling after hours trading, but is a key consideration in HKCC being able to manage the risks associated with after hours trading without having to raise the margin levels. Moreover, we believe the impact on brokers, that decide not to participate the after-hours trading, should be manageable since the proposed measure is similar to the existing HKCC intra-day call arrangement, which includes a \$1 million<sup>3</sup> tolerance limit that negates payment demands of less than that limit on all CPs.

34. **EPs/CPs' Control of Client Risk during T+1 Session** - EPs/CPs should have risk management procedures in place to monitor their clients' risk exposures. EPs/CPs should be able to monitor their CBPL and ensure that clients' positions would not lead to breaching their CBPL during T+1 Session. EPs/CPs should have procedures to notify their clients promptly if the alert level of the preset trading/position limit is reached during T+1 Session and should establish procedures in case clients cannot be contacted. Reference can be made to the experiences of some local brokers conducting European or US derivatives business who consider the credit-worthiness of their clients and might set a higher client margin level for clients who participate in the T+1 Session. They might also apply trading limits to clients according their financial strength. Some brokers might require their clients to deposit additional margin funds, if considered necessary, to safeguard their positions via online banking transfer facilities during T+1 Session. They will usually have client agreements providing that if a client's exposure is close to or exceeds his/her collateral amount during the T+1 Session, the EP will have discretion to close out the client's position, if additional margin is not received. Within matters concerning the relationship with their clients, EPs are advised to observe SFC's Code of Conduct.
35. **Client Agreements and Client Statements** – Participating EPs should review and determine whether their procedures for handling after hours trading for their clients are properly disclosed or reflected in their agreements with their clients. EPs should also inform their clients of when their after-hours trades are reported to their clients in their client statements.
36. **Trading Liquidity** - There may be concern about market liquidity during the T+1 Session. We expect that trading liquidity during the T+1 Session will be contributed by the international and local EPs already conducting overseas derivatives business during the after hours trading session. In terms of total notional turnover of stock index futures in 2010, HKEx ranked fifth according to World Federation of Exchanges (WFE). Various overseas stock index futures markets with less notional turnover than HKEx also managed to conduct after-hours futures trading successfully (see Appendix III for details). Market liquidity is seen in the after hours trading session of these exchanges, though liquidity is unlikely to be as high as during the day and there may be periods of low liquidity.
37. **System Enhancements before Implementation** - After hours trading will involve enhancements to EPs'/CPs' systems. All EPs/CPs, including EPs/CPs that decide not to participate would be subject to the following system and operational implications:
- a) All CLICK/BOPC users would be required to install a new packaged software provided by HKEx and EPs/CPs that decide to participate would also be required to conduct market rehearsals;
  - b) All EPs/CPs using OAPIs would be required to enhance their OAPIs and participate in market rehearsals; and

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<sup>3</sup> Intra-day call amount less than \$1million would not be demanded for settlement.

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- c) All CPs including those not participating in after-hours futures trading will be required to comply with the proposed mandatory variation adjustment and margin call following the market open of each morning session.

All EPs/CPs should review their trading and back office systems and make modifications to support necessary functions including trading, clearing, risk monitoring and client support. They should discuss with their system vendors to ensure system readiness. Sufficient lead time will be provided to ensure smooth implementation.

38. **Impact to Information Vendors** - For information vendors covering European or US markets, the operational impact would be limited, whereas local information vendors focused on local securities and derivatives markets would have to provide data services resulted from trading in T+1 Session. Information vendors would need to review whether system enhancements would be required to receive, distinguish or re-distribute the data in T Session and T+1 Session.

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## PART 4: INITIAL MARKET FEEDBACKS

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HKEx's Derivatives Market Consultative Panel<sup>4</sup> (Panel) was consulted regarding the proposal on after-hours futures trading (AHFT) and the Panel's comments are summarized as follows.

1. The Panel supported in principle the proposal of introducing AHFT in HKEx's derivatives market.
2. The Panel also noted that the new T+1 Session can facilitate investors in managing and hedging their exposures in response to events or news emerging from European and the US time zones. AHFT will be a means of increasing Hong Kong's competitiveness in the global derivatives market and would be a source of business growth. AHFT will also be a prerequisite for trading products on global asset classes.
3. In terms of operations, the following concerns were raised.

### *Operational Issues*

4. One Panel member commented if AHFT could be introduced by phases such that brokers can adjust their operations and manpower arrangements gradually. However, there were also comments that it would be easier to implement system changes for AHFT in one-go.
5. EPs/CPs should be given sufficient notice period to make necessary operational/system changes before AHFT is implemented.

### *Clearing Arrangements*

6. The time window of 30 minutes for post-trade activities after the close of T+1 Session might not be sufficient for T+1 position reporting.

HKEx's Response: For T+1 trades, post-trade activities can be conducted during the T+1 Clearing Session starting from 4:45 p.m. to 11:45 p.m. In addition, post-trade activities for T+1 trades can also be conducted in the T Clearing Session from 7:45 a.m. to shortly before 9:15 a.m. when the opening price is established. CPs can choose to conduct their clearing activities within these two time windows to manage their positions in time for the mandatory market open VA and margin call.

### *Risk Management Arrangements*

7. HKEx might consider skipping the proposed mandatory market open variation adjustment (VA) and margin call or just call the VA as HKEx might trigger ad hoc intra-day call when necessary.

HKEx's Response: The rationales for mandatory morning margin and VA call are that (1) conducting at least one round of intra-day margin call (including VA) per day is an important risk management tool which is also adopted by overseas clearing houses; and (2) the mandatory market open VA and margin call, which aims to collect margins for new positions

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<sup>4</sup> Derivatives Market Consultative Panel comprises mainly of representatives of market participants and industry experts to provide market expertise and advice and act as a sounding board for policy recommendations, strategic initiatives and major investments in relation to the derivatives market.

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established during the T+1 Session, cannot be replaced by the ad hoc intra-day call as the latter collects VA only and delaying collection of margin would not be a prudent counterparty risk management measure.

8. Brokers might not have enough time to manage the collection of margins from their clients for the mandatory VA and margin call, including clients who did not participate in T+1 Session, which in turn might impose additional financial and operational requirements to brokers. HKEx may consider extending the mandatory market open VA and margin settlement deadline from one to two hours such that brokers would have more time to call and collect margins from clients.

HKEx's Response: One hour settlement deadline is reasonable as demonstrated by CPs' ability to meet the one hour settlement deadline required under the current ad hoc intra-day calls. Brokers can satisfy the proposed mandatory call in the next morning with upfront margin from their clients. The proposed arrangements are in line with international practice as some overseas major derivatives exchanges also collect VA and margins more than once a day.

9. The Panel considered that the use of the Calculated Opening Price as a basis for mandatory market open VA and margin call is acceptable for the spot month contract but questioned whether it should apply to back-months contracts.

HKEx's Response: The average daily number of HSI futures contracts traded during the pre-market opening session is about 1,000 contracts. The pre-market auction for spot month and back-months contracts has operated for many years with acceptance by the market. Nevertheless, HKEx will consider this comment together with other comments from the public consultation before finalizing the prices to be used for the mandatory market open VA and margin call.

#### *Other Comments*

10. HKEx should provide an updated Risk Parameter File (RPF) to facilitate brokers' client margin estimation for risk management purposes before the opening of T+1 Session.

HKEx's Response: Other comments are noted and will be considered further in the consultation process.



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(2) Disclosure of identity

HKEx may publish the identity of the respondent together with Section 2 of this response to the members of public. Respondents who do not wish their identities to be published should check the box below:

I/We do not wish to disclose my/our identity to the members of the public.

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Signature (with Company Chop if the response represents company view)

## **SECTION 2: QUESTIONS FOR RESPONSE**

Please indicate your views by providing comments as appropriate. Where there is insufficient space, please use additional sheets of paper as necessary.

### **HKEx's Proposal:**

- HKEx is proposing an after-hours trading session for the futures market (T+1 Session). The opening time of the T+1 Session will be 30 minutes after the close of the regular trading session (T Session), i.e. 4:45 p.m. for Hang Seng Index futures and H-shares Index futures and 5:30 p.m. for gold futures. The T+1 Session will end at 11:15 p.m.
- All trades transacted in the T+1 Session will be registered as T+1 Trades and will be cleared and settled on the following trading day.
- At the initial stage, Hang Seng Index futures, H-shares Index futures and gold futures will be traded in the T+1 Session. Other derivatives products might be considered at a later stage.
- HKEx will manage the risk of after hours trading through appropriate regular, ad-hoc and/or real time monitoring during the T+1 Session and via a new mandatory variation adjustment and margin call following the market open of each T Session and payable by 11:00 a.m.

### **Questions**

1. Do you agree with the proposal to introduce after-hours futures trading?

Yes, please state your views: \_\_\_\_\_

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No, please specify your concerns and impact to you or to the market:

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2. Do you have any comments or concerns on:

a) the proposed trading arrangements?

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b) the proposed clearing arrangements?

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c) the proposed risk management arrangements?

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d) the use of the Calculated Opening Price as the basis for the proposed mandatory variation adjustment and margin call?

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3. Are there any other issues regarding the Proposal that HKEx should consider?

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## **PART 6: HOW TO RESPOND TO THE CONSULTATION PAPER**

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1. HKEx invites written comments on the changes proposed in this paper no later than 8 July 2011.
2. 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/cp201105q.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 After-Hours Futures Trading**

By fax to                      (852) 2524-0149

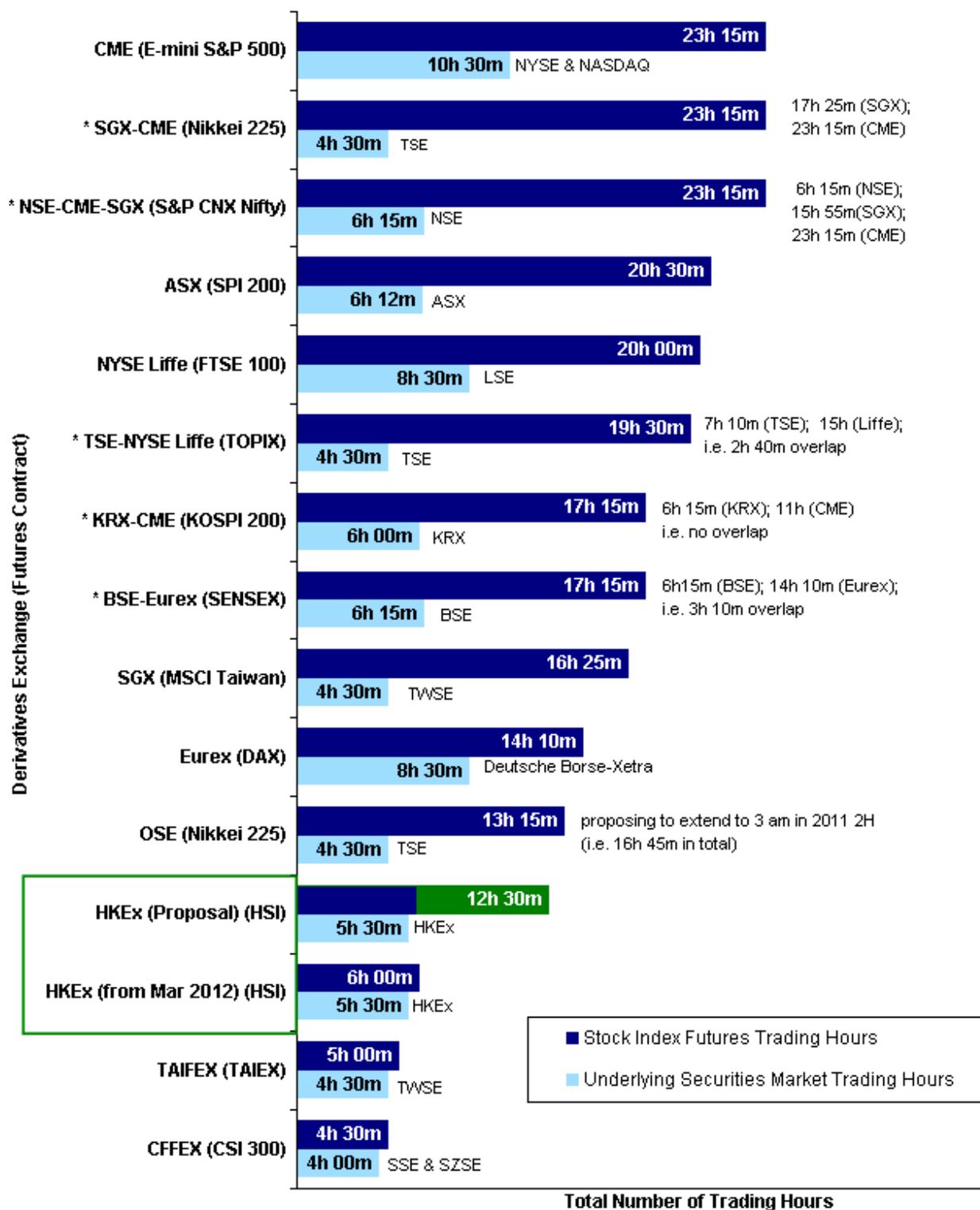
By e-mail to                [response@hkex.com.hk](mailto:response@hkex.com.hk)

Please mark in the subject line:

**Re: Consultation Paper on After-Hours Futures Trading**

3. HKEx's submission enquiry number is (852) 2840-3844.
4. HKEx invites views on the proposed changes, supported, where appropriate, with reasons. Respondents are reminded that HKEx will publish responses on a named basis in the intended consultation conclusions, unless you request otherwise.
5. HKEx's policy on handling personal data is set out in Appendix VIII of this paper.

# APPENDIX I: TRADING HOURS OF STOCK INDEX FUTURES OF GLOBAL DERIVATIVES EXCHANGES



Note: Trading hours are in standard time and include continuous trading session / closing auction session but exclude pre-market opening of the exchanges.

\* The after-hours trading involves partnership arrangement as follows:

- Mutual Offset Trading: SGX-CME on Nikkei 225 and Nifty futures
- Cross Listing: NSE-CME on Nifty futures; BSE-Eurex on SENSEX futures;
- Position Transfer: TSE - NYSE Liffe on TOPIX futures
- Order Routing: KRX - CME on KOSPI 200 futures

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## APPENDIX II: AFTER-HOURS TRADING VOLUME OF STOCK INDEX FUTURES OF GLOBAL DERIVATIVES EXCHANGES

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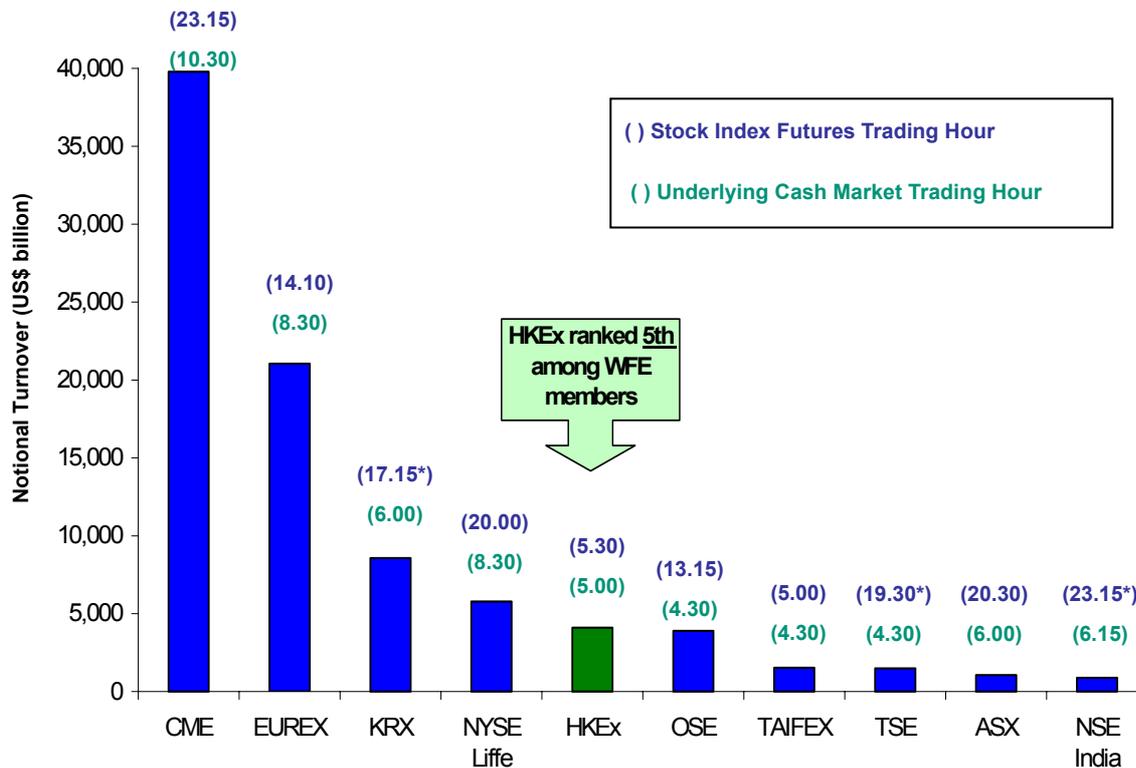
**Daily Trading Volume of After-Hours Trading Session Relative to  
Volume in the Regular Trading Session of Major Derivatives Exchanges  
For the period from October 2010 to February 2011**

<b>Derivatives Exchange</b>	<b>Stock Index Futures</b>	<b>Launch Date of After-Hours Trading</b>	<b>Average Daily Trading Volume in Regular Trading Session (contracts)</b>	<b>Average Daily Trading Volume in After-Hours Trading Session (contracts)</b>	<b>% Ratio of Average Daily Volume in After-Hours Trading Session to Regular Trading Session</b>
SGX	Nikkei 225 Futures	Mar 1996	70,524	26,461	<b>37%</b>
CME	E-mini S&P 500 Futures	before 2000	1.5 mil	291,735	<b>20%</b>
NYSE Liffe	FTSE 100 Futures	Jun 2008	83,058	16,581	<b>20%</b>
OSE	Nikkei 225 Futures	Sep 2007	47,138	8,358	<b>18%</b>
ASX	ASX SPI 200 Futures	May 2000	22,945	3,872	<b>17%</b>
Eurex	DAX Futures	Nov 2005	108,400	16,336	<b>15%</b>

(Source: Bloomberg)

# APPENDIX III: TOP 10 DERIVATIVES EXCHANGE IN TERMS OF NOTIONAL TURNOVER OF STOCK INDEX FUTURES

**Top 10 Derivatives Exchanges in terms of Total Notional Turnover of Stock Index Futures Contracts as of December 2010**



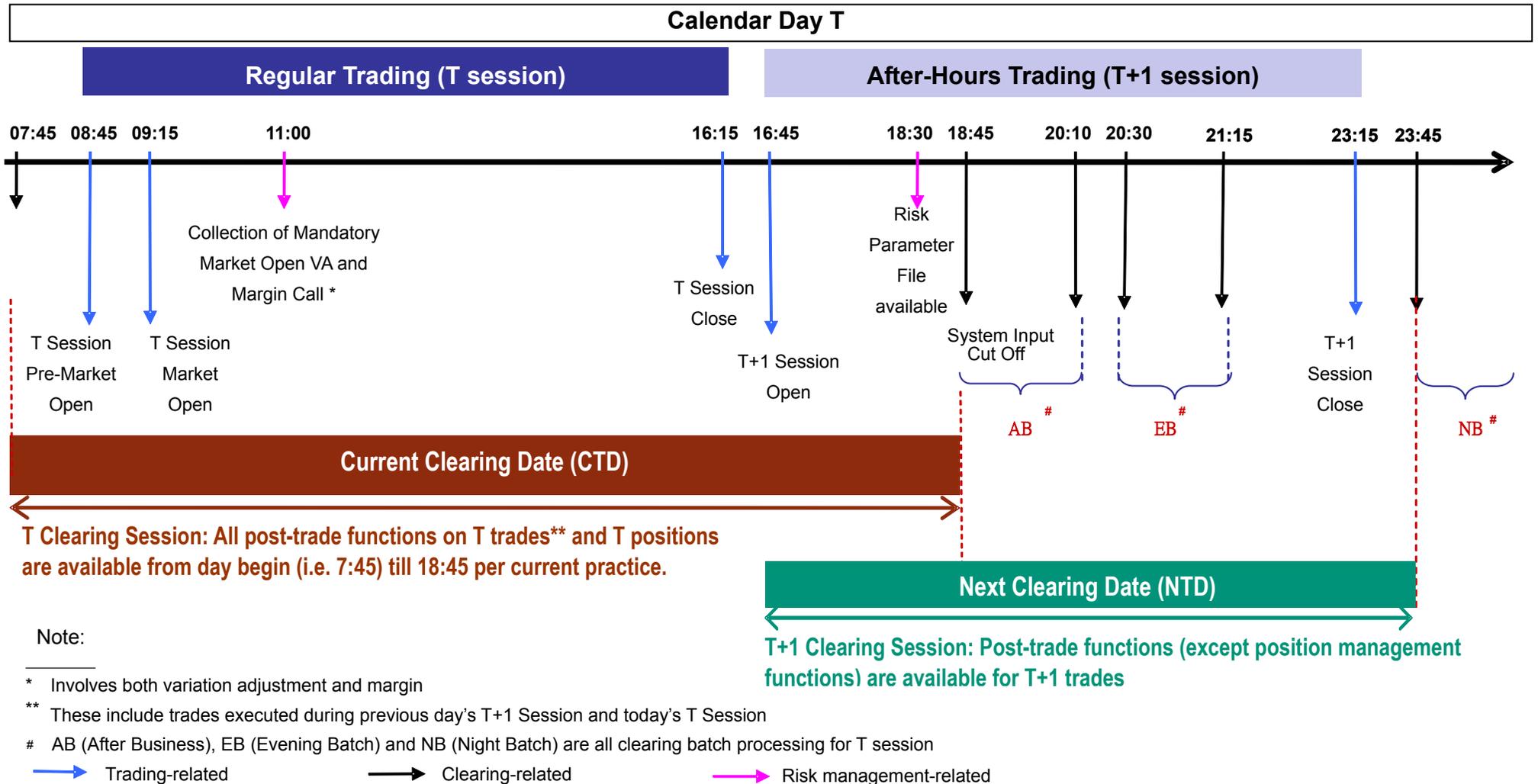
\* The after-hours futures trading involves partnership arrangement with other exchanges

Source: World Federation of Exchanges

## APPENDIX IV: NUMBER OF OVERSEAS-TRADED DERIVATIVES ON HONG KONG-LISTED UNDERLYINGS BY EXCHANGES IN EUROPE AND AMERICAS

Exchange	No. of Overseas-traded Derivatives on HK-listed Underlying in Europe and Americas (as at end of June 2010)					
	Index Derivatives		ETF Derivatives		Single Stock Derivatives	
	Futures	Options	Futures	Options	Futures	Options
<b><i>Americas</i></b>						
AMEX	-	-	-	3	-	12
BATS	-	-	-	1	-	3
BOX	-	-	-	3	-	10
CBOE	-	-	-	4	-	13
CME	1	-	-	-	-	-
ISE	-	-	-	4	-	11
Montreal Exchange	-	-	-	-	-	1
NASDAQ	-	-	-	1	-	1
NYSE Arca	-	-	-	4	-	13
One Chicago	-	-	2	-	10	-
PHLX	-	-	-	4	-	14
<b><i>Europe</i></b>						
EUREX	-	-	-	-	3	3
NYSE Liffe	-	-	-	1	-	3
<b>Total</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>25</b>	<b>13</b>	<b>84</b>

# APPENDIX V: PROPOSED OPERATIONAL FLOW OF STOCK INDEX FUTURES



# APPENDIX VI: PROPOSED RISK MANAGEMENT FOR AFTER-HOURS FUTURES TRADING

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## Capital-based Position Limits (CBPL) Monitoring during T+1 Session

1. CPs trading in the T+1 Session could increase their risk exposures substantially before the eventual settlement of initial margin the following day. Because banking support is not available during the T+1 Session to support margin calls, we propose to manage the counterparty risk during the T+1 Session by monitoring CPs' net<sup>1</sup> CBPL utilisation at a regular interval<sup>2</sup> based on the latest market prices and CPs' positions. The CBPL monitoring aims to ensure that the exposures of those CPs participating in the after hours trading are commensurate with their financial strength in terms of their liquid capital. Further ad-hoc monitoring of selected CPs will be conducted where appropriate.
2. Any CPs whose CBPL utilisation exceeds their limit will be requested to comply with their limit by the end of the same T+1 Session. Specific monitoring of the trading activities of the concerned CPs will be performed during the T+1 Session. Should there be any transactions increasing their risk exposure, the concerned CP may be disconnected from HKEx's trading system and subject to closing out action.

## Mandatory Market Open Variation Adjustment (VA) and Margin Call

3. We propose to introduce a mandatory VA and margin call to markets with T+1 Session following the market open of each regular trading session. Unlike the current ad-hoc intra-day call which includes VA only; this mandatory call will include both VA and margin<sup>3</sup>. The mandatory VA and margin call on stock index products will be issued to CPs by 10:00 a.m. and the payment settlement is expected to be completed by 11:00 a.m. An illustration of the clearing house margin collection timelines under the current and proposed arrangement is set out in Appendix VII.
4. It is important to note that all CPs, including those not participating in after hours trading, will be subject to the mandatory market open intra-day call. The following measures are also proposed to minimize the impacts on CPs:
  - (i) a time window will be given to the CPs participating in after hours trading to perform their post-trade activities<sup>4</sup> before triggering the mandatory market open VA and margin call;
  - (ii) call amounts less than \$1 million will not be collected; and
  - (iii) CPs who have closed out their positions during the T+1 Session or made a gain on their portfolio can have the margin released or profit realised earlier and they would be allowed to withdraw such margin / profit with same date value if they request the withdrawal in accordance with the established procedures.

## Overseas Practices

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<sup>1</sup> Net CBPL will be monitored because gross CBPL does not reflect CPs' real exposures when the majority of the post-trade activities have yet to be performed.

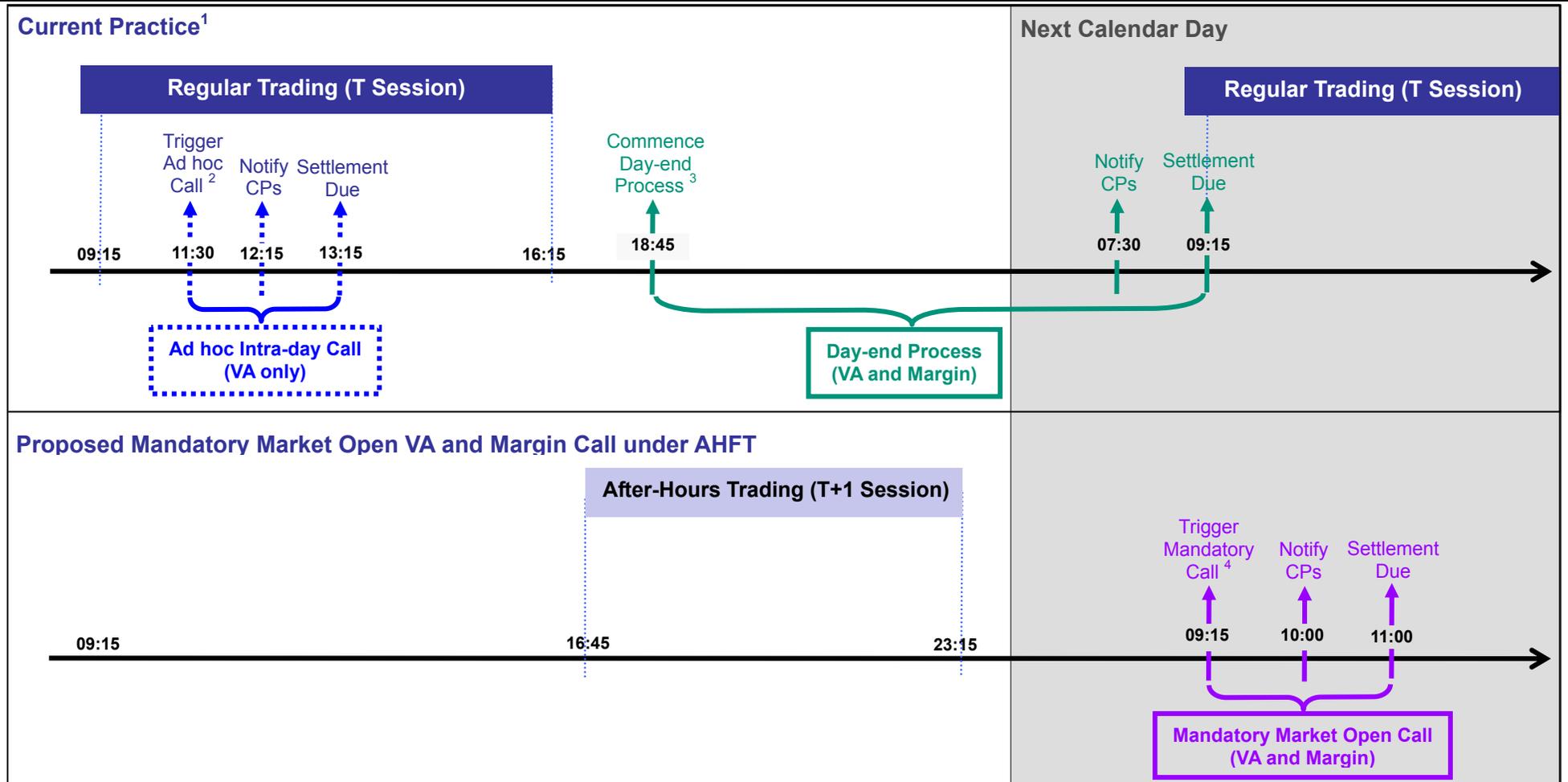
<sup>2</sup> Once every hour tentatively.

<sup>3</sup> Clients' margins held by CPs in relation to the positions in T Session should generally be sufficient for CPs to cover the proposed clearing house's mandatory call without further margin calls on their clients unless their clients' margins have been eroded to an amount below the maintenance margin level.

<sup>4</sup> The clearing system will be available from 7:45am for CPs to perform post-trade activities of stock index products.

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5. From our research conducted on four major overseas exchanges/clearing houses located in USA, Europe and Asia, the mark-to-market and margin of the trades executed during the T+1 Session are in general collected within one day after execution which is consistent with our proposed measure of mandatory market open VA and margin call. Moreover, it is common amongst overseas clearing houses to conduct multiple variation adjustments and margin calls on their CPs each day.
  6. Overseas risk management measures to manage the intra-day risk of after hours trading vary. Some of the overseas exchanges are able to rely on intra-day call(s) to mitigate the risk as their banking support is still available during their after hours trading while others impose position limits on their CPs instead as we are proposing to do.

# APPENDIX VII: ILLUSTRATION OF CLEARING HOUSE MARGIN COLLECTION TIMELINE FOR STOCK INDEX FUTURES



<sup>1</sup> Ad hoc Intra-day Call is triggered with reference to market movement and could be conducted more than once per day. For illustration purpose, the above assumes an ad hoc call is triggered at 11:30.

<sup>2</sup> Based on latest market prices and positions.

<sup>3</sup> Based on daily settlement prices and day-end positions of T Session.

<sup>4</sup> Based on Calculated Opening Price and positions before market open.

# **APPENDIX VIII: PERSONAL INFORMATION COLLECTION AND PRIVACY POLICY STATEMENT**

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## **Provision of Personal Data**

1. Your supply of Personal Data to HKEx is on a voluntary basis. “Personal Data” in these statements has the same meaning as “personal data” in the Personal Data (Privacy) Ordinance, Cap 486, which may include your name, identity card number, mailing address, telephone number, email address, login name and/or your opinion.

## **Personal Information Collection Statement**

2. This Personal Information Collection Statement is made in accordance with the guidelines issued by the Privacy Commissioner for Personal Data. It sets out the purposes for which your Personal Data will be used after collection, what you are agreeing to in respect of HKEx’s use, transfer and retention of your Personal Data, and your rights to request access to and correction of your Personal Data.

## **Purpose of Collection**

3. HKEx may use your Personal Data provided in connection with this consultation paper for purposes relating to this exercise and for one or more of the following purposes:
  - administration, processing and publication of the consultation paper and any responses received;
  - performing or discharging HKEx’s functions and those of its subsidiaries under the relevant laws, rules and regulations;
  - research and statistical analysis; and
  - any other purposes permitted or required by law or regulation.

## **Transfer of Personal Data**

4. Your Personal Data may be disclosed or transferred by HKEx to its subsidiaries and/or regulator(s) for any of the above stated purposes.
5. To ensure that the consultation is conducted in a fair, open and transparent manner, any response together with your name may be published on an “as is” basis, in whole or in part, in document form, on the HKEx website or by other means. In general, HKEx will publish your name only and will not publish your other Personal Data unless specifically required to do so under any applicable law or regulation. If you do not wish your name to be published or your opinion to be published, please state so when responding to this paper.

## **Access to or Correction of Data**

6. You have the right to request access to and/or correction of your Personal Data in accordance with the provisions of the Personal Data (Privacy) Ordinance. HKEx has the right to charge a reasonable fee for processing any data access request. Any such request for access to and/or correction of your Personal Data should be addressed to the Personal Data Privacy Officer of HKEx in writing by either of the following means:

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By mail to: Personal Data Privacy Officer  
Hong Kong Exchanges and Clearing Limited  
12<sup>th</sup> Floor, One International Finance Centre  
1 Harbour View Street  
Central  
Hong Kong

**Re: Consultation Paper on After-Hours Futures Trading**

By email to: [pdpo@hkex.com.hk](mailto:pdpo@hkex.com.hk)

**Retention of Personal Data**

7. Your Personal Data will be retained for such period as may be necessary for the carrying out of the above-stated purposes.

**Privacy Policy Statement**

8. HKEx is firmly committed to preserving your privacy in relation to the Personal Data supplied to HKEx on a voluntary basis. Personal Data may include names, identity card numbers, telephone numbers, mailing addresses, e-mail addresses, login names, opinion, etc., which may be used for the stated purposes when your Personal Data are collected. The Personal Data will not be used for any other purposes without your consent unless such use is permitted or required by law or regulation.
9. HKEx has security measures in place to protect against the loss, misuse and alteration of Personal Data supplied to HKEx. HKEx will strive to maintain Personal Data as accurately as reasonably possible and Personal Data will be retained for such period as may be necessary for the stated purposes and for the proper discharge of the functions of HKEx and those of its subsidiaries.

