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 1: Revise HKEx Stress Testing Assumptions

Questions
1. Do you support the proposed revision of the Price Movement assumptions in stress testing? ☐ Yes ☑ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.
2. Do you support the proposed revision of the Counterparty Default assumption in stress testing? ☐ Yes ☑ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.

HKEx's Proposal 2: Introduce Margining and Dynamic Guarantee Fund in HKSCC

Questions
3. Do you agree with the proposed margining arrangements at HKSCC? ☐ Yes ☑ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.
4. Do you agree with the proposed Dynamic GF model at HKSCC? ☐ Yes ☑ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.

HKEx's Proposal 3: Revise HKCC Reserve Fund Calculation

Questions
5. Do you support the proposed revisions to the HKCC Collateral assumption? ☑ Yes ☐ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.
6. Do you support the use of HKCC Contingent Advance in relieving burden of CPs? ☐ Yes ☑ No Please provide reasons for your response and include any other suggestions or comments you may have on this question: Please see J.P. Morgan's comment letter submitted herewith.
7. What is your view on allowing RF contribution to be counted as liquid capital? Will this help your company in terms of reducing liquid capital funding burden? Please see J.P. Morgan's comment letter submitted herewith.

HKEx's Proposal 4: Revise SEOCH Reserve Fund Calculation

8. Do you support the proposed revisions to the SEOCH Collateral assumption?

☐ Yes

☑ No

Please provide reasons for your response and include any other suggestions or comments you may have on this question:

Please see J.P. Morgan's comment letter submitted herewith.

J.P.Morgan

October 28, 2011

Corporate Communications Department
Hong Kong Exchanges and Clearing Limited
12th Floor, One International Finance Centre
1 Harbour View Street
Central
Hong Kong
response@hkex.com.hk

Re: ***HKEx Clearing House Risk Management Reform Measures***

Ladies and gentlemen:

This letter sets forth J.P. Morgan's comments on Hong Kong Exchanges and Clearing Limited's July 2011 consultation paper *HKEx Clearing House Risk Management Reform Measures*. Terms used but not defined in this letter have the meanings given them in the consultation paper.

We welcome the opportunity to provide comments on the consultation paper, and we commend HKEx for it efforts in reviewing its clearing houses' stress testing methodologies and the adequacy of their financial resources. Although we have a number of questions and comments, we believe that HKEx's four proposals are a step in the right direction in terms of addressing concerns of CCP financial safety and soundness and thereby advancing the goal of systemic stability.

This letter is divided into two parts. Under "General Comments," we raise some points that were not specifically addressed in the four proposals described in the consultation paper, but that we believe merit HKEx's consideration. Under "Responses to Questions Presented," we provide comments on HKEx's four proposals and we answer the specific questions posed in the consultation paper.

GENERAL COMMENTS

The HKEx RM Capital Arrangement

HKEx should contribute HKEx RM Capital to the clearing houses, by way of equity investment or otherwise, to ensure that they hold funds sufficient to cover their obligations in respect of their financial resources packages.

We believe that any review of the adequacy of a clearing house's financial resources must entail an analysis of the capitalization of the clearing house and its ability to withstand the impact of CP defaults on a stand-alone basis. In this regard, we have a number of questions and comments regarding the HKEx RM Capital arrangement.

The consultation paper, in paragraph 18, describes the HKEx RM Capital as one of the three "funding blocks" upon which each clearing house's financial resources are built (the other two being margin and additional collateral and the GF or RF, as the case may be)[1] and, in paragraph 21, states that HKEx RM Capital is available to the clearing houses to "further strengthen [their] risk management regime" and "support their roles as CCPs." The consultation report further specifies, in Appendices X, XIII and XV, that HKEx RM Capital "is currently available to all three clearing houses when all other financial resources are depleted" and that "[i]t will also be used to support the HKSCC Margin Credits and Dynamic GF Credits and HKCC Contingent Advance . . . ."

The consultation paper indicates, in paragraphs 62, 71 and 93, respectively, that there is an "arrangement" with respect to the HKEx RM Capital support of the proposed HKSCC Margin Credit, the HKSCC Dynamic GF Credit and the HKCC Contingent Advance. However, the consultation paper does not detail the nature or terms of the arrangement, other than to state, in paragraph 22, that "[t]he HKEx RM Capital is solely funded by HKEx through setting aside HK$3.1bn of its shareholders' funds" and, in paragraph 93, that "[t]he arrangement will be disclosed in the notes to HKEx's financial statements and is not expected to impact HKEx's profit attributable to shareholders."

We cannot determine, based on our review of the consultation paper, whether the arrangement will constitute (i) a non-binding undertaking by HKEx (such as keepwell) to fund the clearing houses when called upon, (ii) a legally enforceable agreement (such as a guarantee) to provide future funding as necessary or (iii) a contribution of funds (by way of a contribution comparable to a CP's GF or RF contribution or by means of an equity investment or a combination of the two). Given the statements that the HKEx RM Capital will be available to the clearing houses after the depletion of their financial resources, as well as Figure 1 in paragraph 23, which shows HKEx RM Capital as a "third line of support" to cover a Projected Loss, we would have expected to see HKEx RM Capital as an additional item 8 in the HKSCC and HKCC waterfalls and an additional item 6 in the SEOCH waterfall, but there is no reference to it in any of the waterfalls.[2] Its absence from the waterfalls makes us question whether the HKEx RM Capital arrangement will constitute merely a non-binding undertaking.

We believe that a non-binding undertaking by HKEx would not satisfy the standards set forth in the 2004 IOSCO Recommendations. Paragraph 4.5.6 of the 2004 IOSCO Recommendations clearly contemplates that for a financial resource to be considered available to a CCP, it must constitute a legally cognizable claim, rather than a mere unenforceable undertaking, when it states: "The financial resources available to a CCP can take a variety of forms [including] contingent claims on . . . parent organisations [such as] a guarantee . . . ." Moreover, it is possible that even a contractual commitment to provide future funding (such as a guarantee) would not satisfy the 2011 IOSCO Consultative Report, which is arguably even more restrictive

---

[1] Figure 1 of paragraph 23 is consistent in depicting Projected Loss as equal to the sum of margin/additional collateral, GF/RF and HKEx RM Capital.

[2] We assume, but would appreciate confirmation, that the HKSCC Contribution and the HKCC Contribution in those clearing houses' respective waterfalls refer to their own funds and not funds of HKEx.

than the 2004 IOSCO Recommendations in that it does not list parental guarantees as an example of financial resources that should be considered available to a CCP. Its paragraph 3.4.10 states: "A CCP should maintain additional financial resources, *such as additional collateral or a prefunded default arrangement*, to cover credit exposures from participant defaults in extreme but plausible market conditions."[3]

We also believe that neither a non-binding undertaking nor a contractual commitment to provide future funding would be an arrangement that would promote the financial stability of the clearing houses. In the case of a non-binding undertaking, CPs' doubts about the willingness or ability of HKEx to provide one or more of the clearing houses with sufficient funds could result in a destabilizing rush to exit the clearing houses during a crisis. A committed but unfunded facility would be preferable, but even it could become suspect since CPs could question whether it could be terminated, either by HKEx or in connection with its insolvency. Moreover, even if HKEx were to perform as hoped in the case of either arrangement, CPs of one clearing house could still question whether, in the event of multiple defaults across clearing houses, there would be any HKEx RM Capital left for their clearing house to the extent that the other two clearing houses closed out positions more quickly and depleted the HKEx RM Capital.

In our view, the arrangement that would best promote the clearing houses' financial stability and would satisfy CPSS-IOSCO standards would be for HKEx, from the outset, to contribute to the clearing houses HKEx RM Capital in amounts sufficient to cover the clearing houses' obligations in respect of their financial resources packages (including in respect of the proposed HKSCC Margin Credits, HKSCC Dynamic GF Credits and HKCC Contingent Advance). In our view, it would be preferable for such contribution to be by means of an equity investment in the clearing houses in order to best protect them from HKEx's insolvency risk. If, however, the contribution was by means other than equity capital, it would be important for HKEx to obtain, and to provide to CPs, legal opinions to the effect that the contributed funds could not be clawed back from the clearinghouses in connection with any HKEx insolvency proceedings.[4] This would help to ensure that the clearing houses are adequately capitalized and insulated from HKEx's insolvency risk and would thereby promote market confidence in the clearing houses at times of crisis.

Given the importance of the HKEx RM Capital arrangement to the financial resources package of each clearing house, we would recommend that HKEx address the arrangement in a separate consultation paper that provides CPs with sufficient information to adequately assess the risks of the arrangement.

---

[3] Emphasis added.

[4] In this regard, we refer to explanatory note 3.1.4 of the 2011 IOSCO Consultative Report, which states, in relevant part, that "[a]n FMI should be able to articulate its legal basis to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way. One recommended approach to articulating the legal basis for each aspect of an FMI's activities is to obtain well-reasoned and independent legal opinions or analyses."

Protection of CPs' GF and RF Contributions From Clearing House Insolvency Risk

CPs' GF and RF contributions should be structured so that they are protected, to the greatest extent practicable, from the insolvency risk of the clearing houses.

The "Accumulated Income" and "Interest Income" items in the waterfalls described in Appendices X, XIII and XV suggest to us that CPs' GF and RF contributions may not be adequately insulated from the insolvency risk of the clearing houses, and we would appreciate further information as to how the GF and RF contributions are structured. We believe that they should be structured as pledges of collateral, not absolute title transfers, and the clearing houses should not be entitled to re-hypothecate, re-use or re-invest CP contributions.

The Order of Application of Financial Resources

The order of application of financial resources of each clearing house should provide that the amount of a clearing house's contribution is set at a specified percentage of its total financial resources package, may be funded through retained earnings and is exhausted before the application of GF or RF contributions of non-defaulting CPs.

An additional concern we have with the "Accumulated Income" and "Interest Income" items in the waterfalls of the three clearing houses is that they put CPs' funds (in the form of interest earned on CPs' GF or RF contributions) at risk before the clearing houses' contributions have been exhausted. We believe that the first tranche of the clearing houses' contributions should always be exhausted prior to application of non-defaulting CPs' funds, whether they are GF or RF contributions or interest earned on those contributions.

We believe that the amount of each clearing houses' contributions should be set at a specified percentage of its total financial resources package so that its contribution obligation is proportionate to the clearing house's level of risk. To the extent that a clearing house does not hold the requisite amount of funds to satisfy the applicable percentage, it should be required to have been depleted, the clearing house's waterfall should be modified to reflect that fact.

Replenishment Rights and Capped Liability

The replenishment rights of each clearing house should be limited so that CPs' liability for CP defaults is capped.

Paragraph 74 of the consultation paper specifies that "CPs and HKEx will be required to replenish their respective shares of any amounts [HKSCC GF] amounts applied in order to maintain the Dynamic GF at the required level." Paragraph 96 explains that HKCC plans to conform its emergency levy framework with a replenishment arrangement similar to that of HKSCC and SEOCH, such that "[e]ach HKCC CP will be obligated to make further contribution

requested by the clearing house, in addition to the existing RF contribution requirement and potential HKCC Contingent Advance obligation, for an amount up to two times such amount from the date the resignation request is submitted."

We believe that it is essential that the clearing houses' replenishment rights be limited by an appropriate structure that caps CPs' potential liability for GF and RF contributions in the case of any CP default(s). An appropriately designed capped liability structure enables clearing participants to measure and manage their risks to CCPs and enables their regulators to effectively monitor those risks. It also promotes systemic stability by mitigating the risk of participants' rush to exit a CCP during a financial crisis.

We describe below certain basic features of what we view as an appropriately designed and acceptable capped liability structure (the "**Capped Liability Structure**"), which we would recommend to HKEx for its consideration.

Rolling Capped Period. The Capped Liability Structure would limit a CP's liability for losses resulting from any CP default(s) that occur during a rolling 30-day period,[5] with the day count of the period rolling from the day of the most recent default, until a full period expires without the occurrence of a default (the "**Capped Period**"). Thus, the initial 30-day Capped Period would commence upon the occurrence of the first default and, absent the occurrence of a second default, would conclude on Day 30. Upon the occurrence of a second default on, for example, Day 25, the day count would begin again and the Capped Period would extend for another 30 days following Day 25 and would conclude on Day 55. Similarly, if a third default were to occur prior to Day 55, the day count would begin on the day of the third default and the Capped Period would extend for another 30 days. This approach aims at capturing all defaults related to one systemic crisis and subjects the sequential defaults to the same overall cap.

The Liability Cap; CP Resignation. A CP's liability for losses resulting from any default(s) during the Capped Period (and remaining after application of the margin and GF or RF contributions of the defaulted CP(s) and the clearing house contributions) would be capped at the CP's GF or RF contribution amount, determined as of the date of the first default. Accordingly, during the Capped Period, no CP would be required to replenish or otherwise make any contributions to the GF or RF.[6]

Following the end of the Capped Period, the GF or RF amount would be recalculated and the GF or RF replenished. A CP would be required to contribute its recalculated amount to replenish the GF or RF (and would be liable, to the extent of its GF or RF amount, for subsequent defaults), unless it gave the clearing house notice of its resignation and closed out all its open positions by the end of the Capped Period.[7] To ensure that the CP was able to close out all positions by the

---

[5] We describe a 30-day period for illustrative purposes only. The actual number of days in any Capped Period would vary depending upon market-specific risk factors.

[6] However, the GF or RF would be stress-tested daily, and any CP whose GF or RF liability materially increased (e.g., by more than 10%) since the last preceding GF or RF contribution date would be required to post additional collateral, but would post such collateral as initial margin.

[7] In the ordinary course, absent a CP default and commencement of a Capped Period, a CP's resignation would become effective upon the later of the passage of a specified number of days (e.g., 30 days) following notice to the

end of the Capped Period, it would have the ability to liquidate client trades upon ten days' notice to its customers,[8] and clearing house consent to the CP's resignation would not be required.

Goals of the Capped Liability Structure. The Capped Liability Structure is designed to accomplish a number of goals. First, it would provide certainty to each CP (and its regulators) with respect to the CP's exposure to the clearing house at any given time by capping the CP's potential liability at an easily ascertainable number for all defaults (irrespective of how many there are) during a rolling period that is intended to capture all defaults resulting from the same systemic crisis. Second, it would reduce the likelihood that there would be a rush by CPs to exit a clearing house following a default. Even if a CP were to resign and close out all its open positions early in the Capped Period,[9] it would still be liable, to the extent of its GF or RF amount as of the date of the first default, for losses resulting from any default(s) that occurred during the entire Capped Period, so it would have no incentive to engage in recklessly fast close-outs. In addition, because the Capped Period would be rolling, it would permit enough time for an orderly exit if another default occurred towards the end of the initial Capped Period.

Given the importance of the capping the liability of CPs, we would recommend that HKEx address the issue in a separate consultation paper.

Utilization of Appropriately Constituted Risk Committees

Each clearing house should establish a formal risk committee a majority of whose members would be representatives of the top ten CPs by GF or RF contribution amount.

CPs, through their margin and GF and RF contributions, provide the principal sources of the clearing houses' financial stability, and we believe that it is essential that since their capital is at risk, they have a majority say in matters affecting the kinds of risk to which that capital is exposed.

We believe that the risk committee for a clearing house should, among other things: (i) determine the size of the financial resources package of the clearing house; (ii) determine membership criteria and which products are suitable to be cleared at the clearing house; and (iii) establish risk tolerance statements that would be vetted by CPs and the clearing house's governing body. These statements would establish the nature of the stress tests and back tests performed by the clearing house, the assumptions and methodologies used in the tests and the extent of mutualized

---

clearing house and the CP's close-out of all its positions. During a Capped Period, so long as the clearing house received a resignation notice from the CP, its resignation would become effective upon the close-out of all its positions.

[8] The 10-day client notice period is based on a 30-day Capped Period. The actual number of days in the customer notice period will vary based on the length of the Capped Period.

[9] If a CP delivered a resignation notice fewer than 30 days prior to the first default, its resignation would not become effective until it closed out all its positions during the Capped Period and it would be liable for any default(s) during the Capped Period in an amount up to its GF or RF amount as of the date of the first default. Thus, even if a CP grew increasingly nervous about the financial condition of one or more of its fellow CPs, it would have no incentive to rush to exit prior to the first default.

loss exposure that CPs would face if stress scenarios occurred. The list of matters that would be appropriate for a majority vote by CPs should include, at minimum, the size and composition of the GF or RF and how clearing house losses are allocated to CPs.

A clearing house's risk committee should report directly to the clearing house's governing body and should be empowered to make recommendations to the governing body. While the risk committee's recommendations would be non-binding upon the governing body, the clearing house should be required to report to the regulators responsible for oversight of the clearing house any failure of the governing body to accept a recommendation of the risk committee on matters regarding risk.

Transparency of Clearing House Risk Management

Changes in risk management models and risk policies, and other key risk decisions, should be implemented by a clearing house only after extensive consultation with its risk committee and its CPs as a whole

Additionally, we believe that each clearing house should: (i) work closely with its CPs to develop appropriate stress testing and back testing methodologies, as well as internal credit review processes; (ii) share with its CPs underlying data, calculations and results of actual stress tests, back tests and independent model reviews to provide CPs with certainty that the financial resources of the clearing house are adequate; and (iii) provide its CPs with copies of the models used by the clearing house that can be shared with their customers that access the clearing house through the CPs. We believe that these actions would greatly facilitate independent testing and replication and would promote transparency. Rigorous and transparent back and stress test standards and robust internal credit review processes are critical to the ability of each clearing house to withstand the next financial crisis.

RESPONSES TO QUESTIONS PRESENTED

Proposal 1: Revise HKEx Stress Testing Assumptions

Question 1: Do you support the proposed revision of the Price Movement assumptions in stress testing?

Inconsistent With CPSS-IOSCO Principles. In our opinion, the proposed revision of the Price Movement assumptions is problematic. We do not believe that HKEx's proposed approach, which would consider only one price movement scenario based on historical price movements, will be consistent with CPSS-IOSCO principles. In this regard, we note that explanatory note 3.6.15 of the 2011 IOSCO Consultative Report states that stress test scenarios "*must capture a variety of historical and hypothetical scenarios, including scenarios that capture the most-volatile periods that have been experienced by the markets for which the CCP provides its services and forward-looking scenarios to anticipate risks.*"[10]

[10] Emphasis added. Additionally, given explanatory note 3.6.15, we would appreciate further detail as to the rationale for exclusion of the 1987 market crash scenario. While there may be a good argument for its exclusion, we

While we appreciate the desire to implement price movement assumptions that are simple, we believe that HKEx should consider the implications of failure to comply with CPSS-IOSCO principles with respect to the structure of its stress testing methodology. The Basel Committee on Banking Supervision has proposed that CCPs will be "qualifying CCPs" for Basel III exposure purposes *only* if they comply with the CPSS-IOSCO principles (as finalized), with the result being that failure to obtain qualifying status will have significant capital consequences.[11] Given HKEx's desire to attract international participation in its clearing houses, we believe that it should structure a stress testing methodology that is fully compliant with CPSS-IOSCO principles.

The Proposed Three-Year Review Period. In our opinion, a three-year period for a review of the methodology is too long (and it is unclear whether it begins running upon implementation of the methodology or upon implementation of the CPSS-IOSCO requirements). We believe that there should at least be a quarterly review of parameters. Further, market experiences and extreme volatility should trigger a review and revision of the GF or RF if, say, losses exceed 90%. Waiting until a "new high point" could result in a clearing house facing a shortfall in resources available to it.

Stress Testing in Relation to Participants Other Than General CPs. We would appreciate further information as to how HKSCC will perform stress tests on portfolios of participants other than general CPs in order to determine a Projected Loss.

Question 2: Do you support the proposed revision of the Counterparty Default assumption in stress testing?

Cover Two Standard. We believe that the GF or RF should be sized to cover potential losses resulting from the defaults of the CPs to which a clearing house has the largest exposures (and remaining after application of the margin and GF or RF contributions of the defaulted CP(s) and the clearing house contribution). As a general matter, the number of CP defaults requiring coverage should be specific to a clearing house's market, member composition and products cleared. Although we would appreciate further information as to why HKEx proposes coverage of the fifth largest CP in addition to the largest and what the impact would be of such approach relative to the current practice, we believe that, given the systemic importance of the HKEx clearing houses, the GF or RF of each clearing house should be sufficient to cover, at minimum, the defaults of the two CPs to which the clearing house has the largest exposures and their respective affiliates (a "cover two" standard).

---

have difficulty following the reasoning given in the consultation paper, which states in the caption to Table 1 that "[t]he market crash scenario in 1987 is excluded as the drastic drop of 33% and 44% in HSI & HSI futures markets in 1987 was exacerbated by the closure of Hong Kong markets for four days which is recognised as unlikely to recur in the future." We assume that the drastic 33% and 44% drops were not exacerbated by the closing of the Hong Kong markets, but rather the markets were closed because of those drops. Additionally, it is not clear to us what exactly is recognized as unlikely to recur in the future (such drastic drops or the closing of the markets) or who has recognized it as unlikely to recur.

[11] See the consultative document published by the Basel Committee on Banking Supervision on December 20, 2010, available at http://www.bis.org/publ/bcbs190.pdf.

The Defaulter Pays Model. Regardless, however, of the counterparty default assumption that HKEx ultimately decides to adopt, we would recommend that each clearing house also implement a "defaulter pays" model. Under a defaulter pays model, the amount of financial resources provided to a clearing house by a customer of any CP would be set at a level sufficient to cover, with a very high confidence factor, the losses caused by the customer in the event of its default under extreme but plausible circumstances. We believe that an appropriate confidence factor would be at least 99.9%. The financial resources provided by a customer would be the initial margin held by the clearing house for the customer (which is held in the CP's customer account at the clearing house). Thus, initial margin would be required of the customer in an amount sufficient to reach at least a 99.9% confidence level.[12]

Under the defaulter pays model, the amount of the GF or RF would be determined based on the applicable counterparty default assumption and a confidence level of 99.9%, and each CP would contribute to the GF or RF its proportionate share of that amount. However, customers are responsible for the risk of their positions, and CP contributions to the GF or RF are determined by the risk of the positions in their house accounts.

For example, assume that the initial margin of the two largest CPs in respect of positions in their house accounts equaled, at a 99% confidence level, $100 million, and the initial margin in respect of positions in their customer accounts equaled, at a 99% confidence level, $200 million. Further assume that in order to raise the confidence level to 99.9%, the house initial margin would have to increase to $125 million and the customer initial margin would have to increase to $250 million. If the defaulter pays model did not apply, the amount of the GF or RF would equal $75 million. In contrast, if the defaulter pays model did apply, the amount of the GF or RF would equal only $25 million.

It would be appropriate for the rules of the clearing house to require adequate margining of all positions, including direct participants as well as indirect participants. This would be a key step to ensure the safety and stability of the clearing house and to avoid a recourse to risk mutualization in situations where the defaulter should pay.

We believe that a defaulter pays model calibrates the risk presented to a clearing house by each customer of any CP and the financial resources that the customer is expected to provide the clearing house. Accordingly, there is less chance that the clearing house could have insufficient resources to cover its exposure to that customer and to all customers of a CP in the aggregate.

---

[12] This confidence factor could be assessed on a "per account" basis so that in circumstances where there is no loss mutualization between customers (irrespective of whether the accounts are operationally commingled), each customer would post to its customer account at the clearing house collateral required to cover expected losses with a 99.9% confidence factor. In structures that implement a loss mutualization feature between customers, the 99.9% confidence factor would be assessed taking into account the overall risk position within the customer account, which may benefit from risk-offsetting positions.

Proposal 2: Introduce Margining and Dynamic Guarantee Fund in HKSCC

Question 3: Do you agree with the proposed margining arrangements at HKSCC?

Insufficient Information To Adequately Assess The Proposed Margining Arrangements. Although we applaud the introduction of a uniform initial margin methodology as a step in the right direction,[13] we believe that we have insufficient information to assess the adequacy of the proposed HKSCC margining arrangements, including with respect to the following points:

- The consultation paper does not adequately explain the rationale for use of a floor of 5% with respect to the benchmark rate, and it does not appear to us to have any statistical support.

- The consultation paper does not adequately explain the rationale for the assumption of a one-day close-out period, which is, in our view, aggressive since during a stress event even the most liquid contract may have liquidity constraints.

- While the proposed 99.73% confidence interval is comfortingly high, it could provide a false comfort if unreasonable modeling assumptions are used. To assess their reasonableness, we would need to know what they are, including, but not limited to, the assumptions relating to the distribution curve (e.g., normal curve vs. fat tail).

- The consultation paper does not provide the rationale for using a ninety-day look-back period (based on our experience with other clearing houses, we would expect to see a one-year look-back period) or for treating the HSI as representative of volatility in the market.

The Margin Rate. We believe the Margin Rate should be back tested to ensure its adequacy. If there is a break in Margin Rates, calculation of the benchmark rate should be revisited. Further, a three-day period for applying the increased Margin Rate may be too long a timeframe, particularly during a volatile period (such as, for example, the period from September 2008 to March 2009).

Position Netting. To calculate margin amounts payable, total cross-day net long CNS positions and total cross-day net short CNS positions should be netted. Otherwise, CPs will be unduly penalized and placed at a disadvantage.

Intraday Margin. We believe that, as a best practice, the IDM calculation should be carried out daily rather than only prior to Hong Kong public holidays to ensure that HKSCC is protected in

---

[13] We believe the end-of-day mark-to-market collections and intra-day mark-to-market collections beyond the HK$5 million threshold are insufficient to cover potential losses from default and discretionary collateral based on sizable/concentrated positions do not provide CPs with sufficient transparency with respect to the risk management process.

the event of intra-day market volatility leading to a CP default. In addition, intraday margin calls should be required to be paid within an hour of the call being made.

Eligible Collateral. A list of eligible collateral that can be posted as margin should be published together with the applicable haircuts for the collateral. On a separate note, given that HKSCC is a securities clearinghouse, it may imprudent for it to accept stock collateral, as this could result in wrong-way risk.

Margin Funding. With regards to funding requirements for margin, while variation margin has to be collected in the currency of the contract, initial margin can be collected in alternate currencies, provided they are supported by adequate haircuts.

The HKSCC Margin Credit Proposal. We believe that HKEx should not pursue implementation of the HKSCC margin credit proposal because it would de-couple CPs' risk-taking from its costs and could thereby increase inappropriate risk-taking by CPs. Additionally, while we appreciate HKEx's desire to soften the impact upon CPs of changes in the HKSCC margining framework, we feel that HKEx's focus should be on strengthening HKSCC's financial resources package and it should not effectively subsidize a CP's direct participation in the clearing house. If the CP does not have the financial wherewithal to participate directly, it should instead be an indirect participant.

If, despite our concerns, HKEx implements the HKSCC margin credit proposal, we believe that (i) HKEx should ensure that HKSCC has funds sufficient to fully cover any margin credits (we refer to our discussion under "General Comments – The HKEx RM Capital Arrangement" above) and (ii) HKSCC should segregate those funds and use them solely to cover the margin credits.

Question 4: Do you agree with the proposed Dynamic GF model at HKSCC?

Insufficient Information to Adequately Assess the Proposed Model. To be able to comment upon the adequacy of the dynamic GF size, we would require greater clarity on the assumptions and the calculation of Projected Loss and would want to validate the adequacy of the dynamic GF size using back testing results.

We are also unclear why a fixed GF or RF contribution is still needed and if it covers a clearing house first tranche. Our assumption is that there should be just one GF or RF contribution from CPs that is the higher of a minimum contribution amount and the risk-based contribution amount.

It is also unclear how and why the GF positions (which also include net settlement obligations) used for calculating the GF requirement differ from the margin positions used for initial margin.

Daily Stress Testing; Acceptable Collateral. In addition to the monthly review of the GF, the adequacy of the safeguards should be stress tested on a daily basis and should form a trigger for review of the GF.

The concerns we identify above in our response to Question 3 regarding collateral types used for initial margin would also apply in the case of collateral types proposed to be used for GF contributions.

Changes to Dynamic GF Levels. Appendix IX seems to indicate that an increases in the Dynamic GF amount in the range of HK$800 million to HK$1600 million are highly probable and, therefore, we would see a significant increase to the capital required by medium- to large-sized CPs compared to the Fixed GF amount of HK$120 million currently contributed by all CPs and HK$120 million from HKEx. We would appreciate HKEx providing a sensitivity analysis model so that each CP could calculate the real dollar impact this change would have.

The HKSCC Dynamic GF Credit Proposal. We believe that the HKSCC dynamic GF credit proposal is, like the HKSCC margin credit proposal, problematic because it would de-couple CPs' risk-taking from its costs and could thereby increase inappropriate risk-taking by CPs. Again, as with the HKSCC margin credit proposal, while we appreciate HKEx's desire to soften the impact upon CPs of changes in the HKSCC GF framework, we feel that HKEx's focus should be on strengthening HKSCC's financial resources package and it should not effectively subsidize a CP's direct participation in the clearing house. If the CP does not have the financial wherewithal to participate directly, it should instead be an indirect participant.

If, despite our concerns, HKEx implements the HKSCC GF credit proposal, we believe that (i) HKEx should ensure that HKSCC has funds sufficient to fully cover any GF credits (we refer to our discussion under "General Comments – The HKEx RM Capital Arrangement" above) and (ii) HKSCC should segregate those funds and use them solely to cover GF credits.

Proposal 3: Revise HKCC Reserve Fund Calculation

Question 5: Do you support revisions to the HKCC Collateral assumption?

We support the proposal to exclude credits for unpaid intraday margin from the daily RF calculation.

Question 6: Do you support the use of HKCC Contingent Advance in relieving burden of CPs?

The HKCC Contingent Advance would appear to be the functional equivalent of a GF unfunded assessment feature. Given this, we question why HKEx would structure the feature as a contingent advance rather than as unfunded assessments, which would seem to us to be simpler and more transparent as a structural matter. We note with interest HKEx's observation in paragraph 40 of the consultation paper that the 2011 IOSCO Consultative Report, unlike the 2004 IOSCO Recommendations, does not contain any reference to contingent claims against non-defaulting CPs as acceptable resources in stress testing.[14] If HKEx believes that CPSS-

[14] Paragraph 4.5.6 of the 2004 IOSCO Recommendations states: "Resources can include contingent claims on non-defaulting participants, parent organisations, or insurers. For example, a CCP's rules may require non-defaulting participants to provide additional funds to it in the event of default." In contrast, paragraph 3.4.10 of the 2011

IOSCO's intends to prohibit use of unfunded assessments as an acceptable financial resource, then it should give further consideration to whether the HKCC Contingent Advance would be an appropriate structural feature. If HKEx concludes that CPSS-IOSCO would not permit the use of unfunded assessments, then we would recommend that it abandon the HKCC Contingent Advance proposal.

If, however, HKEx concludes that CPSS-IOSCO will likely treat unfunded assessments as an acceptable financial resource, then we would recommend restructuring the HKCC Contingent Advance as an unfunded assessment feature, but HKCC should appropriately haircut any unfunded assessment amounts to reflect the uncertainty of whether all CPs would be able to repay their assessment amounts and should implement a clear monitoring mechanism to ensure that CPs would be able to meet assessments levied upon them. We believe that HKCC apply a 30% haircut to the value of unfunded assessments and only count the value of unfunded assessments, after the haircut, to meet up to 20% of their default resources requirement.

In addition, we believe that (i) HKEx should ensure that HKCC has funds sufficient to fully cover the aggregate amount of unfunded assessments (we refer to our discussion under "General Comments – The HKEx RM Capital Arrangement" above) and (ii) HKCC should segregate those funds and use them solely to cover the assessments.

Question 7: What is your view on allowing RF contribution to be counted as liquid capital? Will this help your company in terms of reducing liquid capital funding burden?

We have no comments with respect to this question.

Proposal 4: Revise SEOCH Reserve Fund Calculation

Question 8: Do you support the proposed revisions to the SEOCH Collateral assumption?

We support giving credit for risk margin deposits in daily RF calculations, but we would appreciate clarification as to what constitutes "surplus funds" (which are referenced in paragraph 102 of the consultation paper).

IOSCO Consultative Report provides: "A CCP should maintain additional financial resources, such as additional collateral or a prefunded default arrangement, to cover credit exposures from participant defaults in extreme but plausible market conditions."

Other Considerations: Risk Management Fund and Pooled Margin Model

We have no comments at this time on the matters addressed in the consultation paper under "Other Considerations," but we would appreciate the opportunity to comment if and when HKEx makes an actual proposal with respect to those matters.

We thank you for the opportunity to comment on the consultation paper.

Sincerely,

[redacted]