Risk Management Guidelines for Licensed Persons Dealing in Futures Contracts

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Introduction

1. These Guidelines are published by the Securities and Futures Commission (SFC) under section 399 of the Securities and Futures Ordinance (SFO) for the purposes of supplementing the existing control requirements for licensed persons dealing in futures contracts.

2. These Guidelines apply to persons licensed for Type 2 regulated activity (dealing in futures contracts) (futures brokers)[1].

3. These Guidelines should be read in conjunction with, and apply without prejudice to, all relevant laws, legislation, codes, regulations or guidelines that are applicable to futures brokers[2].

4. A failure by any futures broker to comply with any applicable provision of these Guidelines:

   (a) shall not by itself render it liable to any judicial or other proceedings, but in any proceedings under the SFO before any court, these Guidelines shall be admissible in evidence, and if any provision set out in these Guidelines appears to the court to be relevant to any question arising in the proceedings, it may be taken into account in determining the question; and

   (b) may cause the SFC to consider whether such failure adversely reflects on the futures broker's fitness and properness and the need for regulatory action.

5. These Guidelines consist of qualitative guidance for risk management policies and controls on futures dealing activities, supplemented by quantitative benchmarks. The control measures specified in these Guidelines are the minimum standards expected of futures brokers and are not meant to be exhaustive. Any deviation from these Guidelines must be properly justified by equivalent or compensating controls which are at least as prudent and effective as those set out in these Guidelines. In determining an appropriate regulatory response to a futures broker's deviation from these Guidelines, the SFC will adopt a pragmatic and holistic approach taking into account all the circumstances, including but not limited to the cause, seriousness, duration and frequency of the deviation, the level of risks, the potential impact on investors, and any remedial measure taken by the futures broker.

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[1] These Guidelines do not apply to any dealing activity in futures contracts carried out by a person licensed for both Type 2 and Type 9 regulated activities solely for the purposes of carrying on its Type 9 regulated activity.

[2] Including but not limited to the SFO, the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission (Code of Conduct), the Management, Supervision and Internal Control Guidelines for Persons Licensed by or Registered with the Securities and Futures Commission, and the Suggested Control Techniques and Procedures for Enhancing a Firm's Ability to Comply with the Securities and Futures (Client Securities) Rules and the Securities and Futures (Client Money) Rules.

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6. Unless specified otherwise, terms used in these Guidelines bear the same meaning as defined in the SFO[3]. Any definition provided in these Guidelines applies to the whole Guidelines unless otherwise specified.

Risk management framework

7. A futures broker should identify and prudently manage the risks arising from its proprietary trading[4] and clients' trading in futures contracts. A futures broker should ensure its risk appetites and risk limits are consistent with its strategic objectives and commensurate with its financial and management capabilities.

8. A futures broker should establish an effective risk governance framework to manage the risks to which it and its clients are exposed. The risk management responsibilities should be delegated to senior management who has the experience and expertise and sufficient authority to implement policies and procedures to monitor and manage these risks in a timely and effective manner. Where these risks are being managed by different persons within the senior management team of a futures broker, it should ensure proper coordination among them to ensure that there is no gap among these responsibilities.

9. The risk management policies and procedures should cover the following areas:

   (a) identification and assessment of material risks and determination of risk appetites and risk limits;

   (b) ongoing risk monitoring, controlling and reporting;

   (c) escalation and resolution procedures for breaches of risk limits and deviations from the policies and procedures; and

   (d) stress testing and contingency planning.

10. The risk management policies and procedures should be subject to regular reviews, particularly before introducing any new services or products or when there are significant changes to existing products or services or relevant legislation, rules or regulations which may affect the futures broker's risk exposure.

Market risk management[5]

11. In these Guidelines, "market risk" means the risk of loss due to adverse movements in the level or volatility of market prices of products or the underlying exposures[6] of products held by a futures broker for its own account.

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3 For example, "futures contract" includes a contract or an option on a contract made under the rules or conventions of a futures market.
4 Including position-taking, arbitrage trading and market-making activities.
5 Applicable only to a futures broker engaging in proprietary trading in futures contracts.
6 For example, an index or a securities underlying a futures contract.

12. A futures broker should ensure that all market risk exposures arising from proprietary trading are properly quantified, monitored and controlled.

13. A futures broker should ensure that proprietary positions in futures contracts are marked-to-market on a real time basis. Day-end revaluation of proprietary positions[7] should be carried out by an independent risk control unit or back office staff who are independent of the front office, and the prices used for revaluation purposes are obtained from a source independent of the front office or are independently verified.

14. A futures broker should establish a market risk measurement system to estimate the probable impact on its proprietary positions of adverse changes in market conditions over a holding period suitable for the positions to quantify its market risk exposures. A futures broker which is exposed to significant market risks or deploys complex trading strategies should use an appropriate risk model or other quantitative methods (eg, value-at-risk model, scenario analysis, sensitivity analysis or stress testing) to quantify its market risk exposures.

15. A futures broker should regularly compare the estimated market risk exposures with the actual and hypothetical returns of its proprietary positions. If the actual or hypothetical losses of the positions exceed the estimated market risk exposures, the difference should be investigated and, where necessary, the market risk measurement system should be adjusted.

16. A futures broker should establish prudent market risk limits which are commensurate with its financial and management capabilities. The limits must be properly approved by its senior management and board of directors. Any breach of the limits should be promptly escalated to senior management and remedial action should be taken in a timely manner.

Commodity futures trading

17. A futures broker dealing in a futures contract on commodity (commodity futures) should maintain a list of commodity futures in which it can deal, which should be approved by its senior management. It should monitor the risks of the commodity futures on the list.

18. A futures broker which handles physical settlement of commodity futures should have sufficient knowledge about the underlying commodity markets for this purpose. For example, it should understand:

    (a) the roles of the parties involved in the physical settlement of the commodity futures; and

    (b) the storage and delivery arrangements relating to the physical settlement of the commodity futures, such as whether the commodity can be delivered

[7] Unless otherwise specified, any reference to “proprietary positions” in these Guidelines includes a reference to positions in futures contracts and positions in other products.

only to a specific delivery point or storage facility and their capacity constraints, and related administrative requirements.

Client credit risk management

19. In these Guidelines,

– "client credit risk" means the risk of a futures broker suffering loss due to a client defaulting on his or her obligations under a futures contract. A futures broker may suffer a loss if a client defaults on his or her obligation to it or it is required to meet the obligation of a defaulting client to a counterparty;

– "counterparty" includes any executing agent, clearing agent, exchange or clearing house executing or clearing a futures contract.

Client risk limits

20. A futures broker should:

(a) put in place prudent risk limits, including trading and position limits, for each client to mitigate client credit risk. The risk limits should be based on appropriate risk factors, eg, the client's total or net position in a single futures contract or related futures contracts, or total or net margin requirements. Where appropriate, a futures broker should put in place prudent risk limits for a group of connected clients on an aggregate basis which should holistically take into account the circumstances of all the clients in the group; and

(b) set position limits for each client (where applicable, each group of connected clients) for preventing any breach of any applicable statutory or regulatory position limits.

<u>Note 1</u>

In these Guidelines, a "group of connected clients" means:

(a) a group of two clients when one is the spouse of the other;

(b) any two or more clients who are natural persons (other than spouses) and act on behalf of the same third party, who is not a client of the futures broker but is the beneficial owner of these clients' accounts or stands to gain the commercial or economic benefit or bear the commercial or economic risk of the transactions in those accounts;

(c) any two or more clients who are natural persons (other than spouses) where one acts through the others and is the beneficial owner of the others' accounts, or stands to gain the commercial or economic benefit or bear the commercial or economic risk of the transactions in those accounts;

(d) any two or more clients which are corporations of which a natural person, either alone or with his or her spouse, controls 35% or more of their voting rights;

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(e) any two or more clients which are members of the same group of companies; or

(f) any two or more clients who are financially connected by guarantee arrangements under which the financial liabilities of one or more of these clients are guaranteed by one or more of the others, or the financial liabilities of these clients are guaranteed by the same guarantor who is not a client of the futures broker.

To ascertain whether two or more clients who are natural persons (other than spouses) are part of a group of connected clients, a futures broker is not required to conduct proactive searches for the beneficial owners of their accounts but it should make appropriate enquiries where there is indication that a client is not acting on his or her own behalf.

21. A risk limit of a client or a group of connected clients should:

(a) in the case of a position limit for preventing any breach of a statutory or regulatory position limit, be determined having regard to the relevant law or regulation and not exceed the statutory or regulatory position limit;

(b) not exceed the corresponding risk limit set by the relevant counterparty;

(c) not be excessive taking into account the following:

(i) the financial and management capabilities of the futures broker;

(ii) the financial situation of the client or group of connected clients demonstrated by appropriate objective proof, such as tax returns, salary advices, bank or broker statements or audited financial statements;

(iii) any internal and external credit reference information or credit history of the client or group of connected clients;

(iv) the investment objective, risk appetite, trading pattern or strategy of the client or group of connected clients;

(v) any known event which reflects adversely on the financial situation or default risk of the client or group of connected clients;

(vi) the historical volatilities of the price or level of the underlying exposure of the futures contracts covered by the limit in past market stress events;

(vii) in relation to a client who will physically settle commodity futures, the readiness of the client to deliver or take delivery of the underlying commodities;

(viii) the potential financial impact on the futures broker of client default and market shocks (for example, a significant increase in a

counterparty's margin requirement for the client's positions when the market is under stress); and

(ix) prevailing market conditions;

(d) be incorporated into the futures broker's risk management system, order management system or trading platform for detecting or preventing any breach; and

(e) be subject to regular reviews (at least annually) and whenever there is a significant change in any determining factors, including those set out in subparagraphs (a), (b) and (c).

22. For an affiliate client of a futures broker which is regulated or supervised by a financial regulator in Hong Kong or a prescribed country[8], the futures broker will be regarded as having complied with paragraphs 20 and 21 if it has put in place:

(a) measures to prevent any breaches of statutory or regulatory position limits for the affiliate client, and the corresponding risk limits set by the relevant counterparty;

(b) policies and procedures to ensure timely settlement of its obligations to the relevant counterparty, taking into account any sudden surges in the margin requirement for the affiliate client's positions and its settlement obligations to the relevant counterparty;

(c) regular reviews on the affiliate client's ability to timely meet settlement obligations to the futures broker taking into account the affiliate client's business and financial circumstances, including the affiliate client's:

(i) trading pattern or strategy;

(ii) investment objective and risk appetite;

(iii) financial situation and credit history;

(iv) funding resources allocated for the purpose of dealing in futures contracts;

(v) margin and risk management policies applied to the affiliate client's underlying clients; and

(vi) licensing or authorisation status and any regulatory actions taken by the relevant authority or regulatory organization in the jurisdiction in which the affiliate client is licensed or authorised;

(d) regular assessments to ensure the level of trading activities of the affiliate client is commensurate with the funding resources in (c)(iv) above;

[8] "Prescribed country" has the meaning assigned to it by section 2(1) of the Securities and Futures (Financial Resources) Rules (FRR).

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(e) ad-hoc reviews on its exposure to the affiliate client's trading activities with reference to the factors set out in (c) upon significant market events or market volatility to ensure that its client credit risk is not excessive taking into account its own financial and management capabilities; and

(f) a contingency funding plan to ensure it has adequate sources of liquidity in place to fulfil its settlement obligations to the relevant counterparty and comply with the minimum liquid capital requirements under the FRR under a scenario of settlement delay or failure by the affiliate client.

Note 2

In these Guidelines, an "affiliate client" of a futures broker means any company within the same group of companies as the futures broker.

23. A futures broker should clearly document in its risk management policy and procedures the methodology adopted and factors considered in determining client risk limits.

24. Any waiver or increase of a client risk limit should be properly justified by a written risk assessment and endorsed by senior management.

Collection of margins from clients

25. A futures broker should not trade futures contracts for a client unless the client has provided sufficient collateral[9] to meet its margin requirement. This paragraph does not apply to concessionary margining granted by a futures broker to clients pursuant to paragraph 36.

Note 3

In these Guidelines, "concessionary margining" means an arrangement between a futures broker and a client in respect of margining a futures contract whereby the client is not required to comply with an upfront collateral requirement prescribed in the rules of the exchange or clearing house executing or clearing the futures contract if the client meets the eligibility criteria prescribed in those rules.

26. A futures broker should impose on a client a margin requirement (which may include an initial margin requirement and a maintenance margin requirement) which is not lower than the amount set by its counterparty.

Note 4

A futures broker may impose a margin requirement on a client which is higher than the amount set by its counterparty taking into account the circumstances of the

[9] For example, a cheque received by a futures broker in good faith which it has no reason for suspecting that it will be dishonoured may be treated as cash.

client and the futures broker, the risk of the futures contracts and prevailing market conditions.

27. A futures broker should not grant any credit facilities or loans to any clients or make any other arrangements[10] to enable any clients to meet margin requirements. This paragraph does not apply to concessionary margining granted by a futures broker to clients pursuant to paragraph 36.

28. A futures broker should put in place special margining arrangements to mitigate the client credit and funding liquidity risks that may arise due to:

    (a) volatile market conditions; or

    (b) market movements during public holidays in the place where a client is based[11].

    Note 5

    In these Guidelines, "funding liquidity risk" means the risk of a futures broker failing to meet its financial obligation under a futures contract when it falls due[12].

29. A futures broker should determine its special margining arrangement based on a reasonable assessment of its exposure during the period between the last margin call issued on its clients and the next margin call. The assessment should take into consideration all material risks and operational factors[13] and the implications to its financial position and compliance with the relevant laws and regulations in case its clients fail to settle margin calls on time. Special margining arrangement may include temporarily raising margin requirements or collecting additional margins before public holidays.

30. A futures broker should set prudent thresholds for issuing margin calls, for stopping clients from opening further positions and for forced-liquidating clients' positions. It should document in its risk management policies and procedures the factors considered in determining the thresholds and the procedures of notifying the clients of the actions triggered.

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[10] For example, a futures broker should not provide financial support to an affiliated company to facilitate the latter to grant a credit facility or loan to the broker's client to help the client meet the margin requirements for the client's position in futures contracts.

[11] For example, a Hong Kong client trading in an European futures market may not be able to meet margin calls during Hong Kong public holidays. Similarly, an overseas client trading in the Hong Kong futures market may not be able to transfer funds to the futures broker during the client's local public holidays.

[12] For example, a futures broker fails to meet a margin call issued by its counterparty on a futures contract by the deadline, which may be due to the failure of the underlying client in meeting its margin call timely and the futures broker does not have adequate funds to settle the margin call on behalf of the client.

[13] Including but not limited to the latest market condition and historical volatilities of the market, its ability to meet ad-hoc margin calls or settle margin calls issued by counterparties during Hong Kong public holidays within the required timeframe.

31. A futures broker should:

(a) regularly and upon receiving an ad-hoc margin call from its counterparty determine whether margin shortfalls have arisen in client accounts;

Note 6

For the purposes of these Guidelines,

– "margin shortfall" arises when the net equity balance of a client account is lower than the margin requirement set by the futures broker for the open positions in the account;

– "net equity balance" of a client account means the sum of collateral[14] held in the account, floating profits of open positions in the account and income credited to the account, minus floating losses of open positions in the account and fees, commissions, levies and other charges debited from the account.

(b) issue a margin call to a client whose account has margin shortfall that exceeds the threshold for issuing margin calls as soon as reasonably practicable;

(c) collect promptly from clients any amounts due as margin. The deadline for settling a margin call should be prudent and reasonable in the circumstances. In the case of clients based in Hong Kong, futures brokers are generally expected to collect from the clients any amounts due as margin within one business day of issuing the margin call;

(d) prevent a client whose account has margin shortfall from opening any new positions in futures contracts that would increase the margin shortfall amount; and

(e) maintain detailed records of margin calls issued to each client, including the amount and time of issuance of each margin call, the client's response and settlement details, and any follow-up action taken on outstanding margin calls.

32. If a client fails to meet a margin call before the deadline set by the futures broker, the futures broker may close out any position in the client's account for reducing the margin shortfall in the account.

33. A futures broker should strictly enforce its margin and forced liquidation policies and procedures. It should obtain senior management's approval for:

(a) any deviation from the policies; or

(b) any margin call or forced liquidation waiver.

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[14] Including cash collateral and market value of non-cash collateral after applying prudent haircuts.

34. Such approvals should not be granted unless the senior management has proper justification for granting the approvals, including the approver has been reasonably satisfied that the deviation or waiver would not affect the futures broker's financial stability. A futures broker should document the basis of each approval, including:

    (a) the reason for granting the approval;

    (b) in the case of a waiver approval, the approver's assessment of the client's ability to settle his or her obligations to the futures broker based on the client's financial positions and settlement history;

    (c) the approver's assessment of the impact of the approval on the futures broker's liquidity and ability to comply with the liquid capital requirements under the FRR; and

    (d) any step it has taken, is taking or will take to address the risks resulting from the approval.

35. A futures broker should subject such approvals to regular independent reviews to ensure that its senior management properly exercises the approval power.

Concessionary margining

36. A futures broker may apply concessionary margining to a client in respect of his or her trading in a futures market if:

    (a) the client has a record of consistently meeting margin requirements, maintains sound financial positions relative to the size of his or her portfolio and trades, and meets the eligibility criteria set out in the rules of the relevant exchange or clearing house for concessionary margining;

    (b) it strictly follows all the requirements relating to concessionary margining in the rules of the exchange or clearing house; and

    (c) it has sufficient liquidity and financial capability to settle its counterparties' margin requirements on the trading of futures contracts of all clients which are subject to concessionary margining.

37. For the purpose of these Guidelines, "consistently meeting margin requirements" means the client has no records of failure to meet the margin requirements, forced liquidation or returned cheques:

    (a) if the account has been opened for one year or more, within an immediately preceding period of at least one year; or

    (b) if the account has been opened for less than one year, for the period since account opening, and of at least three months.

38. A futures broker should assign a prudent trading limit to each client which is subject to concessionary margining. The trading limit should not be excessive taking into account the futures broker's financial capabilities and the client's

specific circumstances, including his or her financial situation, settlement history, investment objective, risk appetite and trading pattern or strategy.

39. In these Guidelines –

(a) "Uncovered client margin amount" of a client's ledger account[15] means the total amount of margin required for trading of futures contracts in the account which is not covered by the account's net equity balance. In calculating the "uncovered client margin amount", a futures broker may refer to either:

(i) the total amount of margin required to be deposited by it with its counterparties; or

(ii) the total amount of margin required to be deposited by the client with it.

(b) For the purpose of calculating the "uncovered client margin amount" in (a), a futures broker is not expected to take into account the trading of futures contracts in a trading session of a futures market if the trading hours of the trading session extend beyond mid-night of the trading day.

(c) "Excess liquid capital" (ELC) of a futures broker means its liquid capital less required liquid capital under the FRR.

(d) "Available funding" of a futures broker means the sum of unencumbered cash beneficially owned by it and the amount of its undrawn bank lines allocated by it for the purposes of dealing in futures contracts.

40. For the purpose of paragraph 36(c), a futures broker should calculate the sum of uncovered client margin amounts of all clients' ledger accounts which are subject to concessionary margining as at the close of every trading day, and compare this amount with a quantitative benchmark which is set at 50% of the higher of the futures broker's ELC and available funding.

41. A futures broker which exceeds the quantitative benchmark should:

(a) assess its credit risk exposure to client positions with concessionary margining to ensure the exposure is not excessive taking into account its own financial and management capabilities; and

(b) take timely and appropriate actions to reduce any excessive exposure and ensure its financial integrity.

[15] Please refer to paragraphs 17 and 19 of Schedule 4 to the Code of Conduct applicable to exchange participants of Hong Kong Futures Exchange Limited (HKFE) for the requirement to maintain separate ledger accounts in respect of HKFE Trade and Non-HKFE Trade. The terms "HKFE Trade" and "Non-HKFE Trade" are defined under the Rules of HKFE.

42. A futures broker may use either (i) its latest amount of ELC or available funding; or (ii) the amount of ELC or available funding based on its latest financial returns submitted to the SFC for the comparison in paragraph 40.

Risk management over executing or clearing agents

43. When a futures broker engages an executing or clearing agent to execute or clear futures contracts for clients, it should:

    (a) establish written policies and procedures to ensure proper management of exposure of the firm and its clients to the agent;

    (b) regularly conduct due diligence reviews of the agent if the agent is not a licensed corporation, registered institution, exchange participant of a recognized exchange company, or clearing participant of a recognized clearing house, and assess the agent's capability taking into account public or other available information that is relevant to its dealings with the agent, including the agent's:

        (i) licensing or authorisation status and the regulations of the jurisdiction in which the agent is licensed or authorised, including the regulations of the exchange or clearing house of which the agent is a member or participant;

        (ii) financial background;

        (iii) client margin and risk management policies;

        (iv) execution or clearing capacity;

        (v) disaster recovery procedures; and

        (vi) client assets segregation policies;

    (c) implement appropriate arrangements and measures to avoid, mitigate and manage the impact of unavailability of the executing or clearing agent, such as identifying at least one candidate of back-up executing or clearing agent and, where possible, establishing and maintaining a mutual understanding or formal agreement with the candidate on the back-up arrangement; and

    (d) monitor the impact on the capability of the agent to provide services of changes in market conditions and other circumstances[16].

[16] For example, regulatory actions taken against the executing or clearing agent and changes in regulations of the exchange or clearing house of which the executing or clearing agent is a member or participant.

Funding liquidity risk management

44. A futures broker should employ prudent cash flow management and ensure that client money or collateral held by it is sufficiently liquid for settling its counterparties' margin requirements for trading of futures contracts on behalf of clients.

45. A futures broker should regularly evaluate its liquidity needs to weather market-wide or idiosyncratic stresses and develop appropriate emergency funding plans. To ensure that adequate new funds are available in an emergency, it should avoid relying on a single funding source.

Safeguarding client assets

46. The following requirements apply to futures brokers without prejudice to the requirements under the Securities and Futures (Client Money) Rules and the Securities and Futures (Client Securities) Rules.

47. A futures broker should ensure that client positions in futures contracts and their related margins are booked separately from its proprietary positions and their related margins in its accounts with counterparties.

48. A futures broker should not use assets belonging to one client to secure or settle transactions of another client.

49. Where client positions and assets are held in an omnibus account with a counterparty, a futures broker should take reasonable steps to prevent assets belonging to one client account from being used to set off or settle another client account's overloss (ie, any amount of trading loss of a client account which exceeds the account's net equity balance).

50. Where a client account's overloss and other client accounts' assets in a futures broker's omnibus account are set off by a counterparty, the futures broker should as soon as reasonably practicable deposit into the omnibus account or a designated trust bank account or segregated account any asset received by it for settling the margin call on the client account incurring the overloss and an amount of its own cash which equals the amount of the aforesaid margin call which remains unsettled to remedy the shortfall in other client accounts' assets caused by the set-off.

51. A futures broker should disclose in the client agreement:

    (a) the extent of its liability to the client in respect of client assets held by its executing or clearing agent when the latter defaults;

    (b) the client's rights to assets held by it in its omnibus account with a clearing house may be subject to it fulfilling its obligations to the clearing house, which may be further subject to its other clients fulfilling their obligations to it, despite the fact that the client did not default on his or her obligations to it; and

(c) the client's rights to assets held by it in its omnibus account with an executing or clearing agent may be subject to it, its other clients, the executing or clearing agent or their agents, and other clients of the executing or clearing agent or their agents fulfilling their obligations to their counterparties, despite the fact that the client did not default on his or her obligations to it.

Trading in futures markets outside Hong Kong

52. A futures broker which provides dealing or clearing services to clients in a futures market outside Hong Kong should:

    (a) prudently manage its exposure to each overseas executing or clearing agent in respect of client assets held by the agent but not required for meeting the obligations to the agent on its client transactions;

    (b) disclose in writing to clients the key risks of conducting transactions in a futures market outside Hong Kong, including but not limited to the fact that its overseas counterparties and that futures market are not subject to the regulation of the SFC and may be subject to laws and regulations which may be different from the SFO and the rules and regulations made thereunder and consequently, the client may not enjoy the same protection as that conferred on trading in a Hong Kong futures market;

    (c) deal with client enquiries in a timely manner, in particular, on request by any client, disclose the latest licensing or authorisation status of its overseas counterparties or that futures market (as the case may be); and

    (d) monitor material changes in the regulation of its overseas counterparties and that futures market that may affect the interests or assets of its clients.

Stress testing

53. A futures broker should establish proper stress testing policies and procedures which clearly set out the stress testing methodology and frequency, and the review and reporting mechanisms. The policies and procedures should be approved by senior management.

54. A futures broker should conduct stress tests at least weekly and during a volatile market to identify any potential financial vulnerability. It should use appropriate stress testing methodologies which are commensurate with the risk characteristics of products traded by it or its clients. It should also observe the stress testing requirements set by any exchange or clearing house of which it is a member or participant.

55. A stress test should be capable of:

    (a) projecting the amount of loss (projected loss) that might arise in each client account under the stress scenario assumed in the stress test (assumed

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stress scenario) and estimating the impact of material projected overlosses in client accounts[17] on the futures broker's ELC and available funding;

Note 7

In these Guidelines, "projected overloss", in relation to a client account, means the amount by which any projected loss exceeds the net equity balance of the account.

Note 8

A futures broker may exclude from the coverage of the stress test carried out under these Guidelines any positions in the accounts of clients which are:

(i) licensed corporations;

(ii) registered institutions; or

(iii) futures dealers (as defined in section 2(1) of the FRR) outside Hong Kong,

if those positions are carried by such financial institutions on behalf of their clients.

(b) projecting the amounts of trading losses and margin calls that might arise from the futures broker's proprietary positions under the assumed stress scenario and estimating the impact of the total amount of projected trading losses and margin calls on its ELC and available funding; and

(c) appropriately estimating the potential losses of products with non-linear payoffs (eg, options).

56. Subject to paragraph 57, the assumed stress scenarios to be applied by a futures broker in its stress tests should include scenarios of extreme but plausible price movements or volatility shifts[18] of the futures contracts traded by it or its clients which should be determined with reference to or based on:

(a) past futures market stress events[19]; and

(b) its assessment of emerging risks which might have a significant impact on the price or volatility of the futures contracts[20].

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17 The impact of a projected overloss on the futures broker's ELC and available funding is equal to the amount of the projected overloss on the assumption that all the positions in the client account would be closed out when the overloss arises and the futures broker would be required to settle the overloss for the client with its counterparties using its own funds.

18 A futures broker which holds options contracts for client or proprietary accounts should conduct stress tests for volatility shifts.

19 For example, the 2008 global financial crisis and 2020 volatility in WTI crude oil price.

20 For example, an event which might significantly increase or decrease the supply or demand of the underlying commodity of a commodity futures.

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57. A futures broker which is a member or participant of an exchange or a clearing house should ensure that the assumed stress scenarios used for stress testing positions in a futures contract traded or cleared by the exchange or clearing house are at least as stringent as those specified or suggested by the exchange or clearing house for its members or participants[21].

58. A futures broker which is part of a group and relies on stress tests conducted centrally at the group level will be regarded as having complied with paragraph 54 only if:

   (a) the group-wide stress tests have taken into account the futures broker's risk exposure and financial position, and appropriately project the impact on its ELC and available funding under stress scenarios; and

   (b) the approach adopted by those stress tests is substantially consistent with or more stringent than the requirements set out in paragraphs 54 to 57.

59. A futures broker which relies on the stress tests prescribed in paragraph 58 for compliance with paragraph 54 should submit the group-level stress test reports to the SFC upon request. A designated senior management staff should be responsible for explaining to the SFC the stress test results relating to the broker's exposure and respond to other related enquiries from the SFC in a timely manner.

   <u>Note 9</u>

   For the avoidance of doubt, paragraphs 58 to 59 do not apply to futures brokers which conduct their own stress tests in accordance with paragraphs 54 to 57.

60. A futures broker should promptly and diligently assess stress test results with a view to identifying any potential threat to its financial stability, and take prompt follow-up action. In conducting the assessment, it should at least:

   (a) compare the total projected losses in client accounts and total projected trading losses in proprietary accounts with the results of the previous stress test;

   (b) identify

      (i) any client or group of connected clients who has a projected overloss (total projected overlosses in the case of a group of connected clients) exceeding 30% of its ELC or available funding (Note 10); and

      (ii) any other clients or groups of connected clients to whom its exposure is considered excessive by it (Note 10);

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[21] For example, the underlying price movements to be assumed for index options traded on HKFE are ±20% when these Guidelines were prepared.

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(c) assess the adequacy of its ELC and available funding to absorb the aggregate impact of:

  (i) the projected overlosses (total projected overlosses in the case of a group of connected clients) of the two clients or groups of connected clients who have the largest projected overlosses in their accounts (Note 10); and

  (ii) the projected trading losses in its proprietary accounts; and

(d) assess the ability of those clients or groups of connected clients identified under subparagraph (b) or (c)(i)[22] to settle the projected overlosses (total projected overlosses in the case of a group of connected clients) should those losses arise.

Note 10

Clients or groups of connected clients who have a record of consistently meeting margin requirements or maintain sound financial positions relative to the size of their portfolios and trades may be excluded.

61. Where a futures broker assesses that its financial stability might be under threat under an assumed stress scenario, it should take prompt and effective follow-up actions, such as adjusting its risk management measures and preparing a detailed contingency plan to prevent settlement failure, insolvency or non-compliance with the minimum liquid capital requirements under the FRR under market stress. It should ensure that the assumptions applied in the contingency plan are realistic (eg, whether contingent funding would be available when the group and its lending banks are also under stress and whether concurrent funding needs of other business lines[23] of the futures broker would arise).

62. A futures broker should document:

(a) the details of each stress test performed, including the methodology, data sources, data history, assumptions and assumed stress scenario applied in the stress test;

(b) the results of each stress test, including but not limited to the amount of projected loss and projected overloss of each client account, and the projected trading loss in each of its proprietary account;

(c) the results of its assessments of stress test results; and

(d) any follow-up actions taken on the assessment results.

22 An assessment of clients or groups of connected clients identified under subparagraph (c)(i) is only required if the futures broker's ELC or available funding is inadequate to absorb the aggregate impact of the amounts referred to in subparagraph (c)(i) and (ii).

23 For example, a futures broker may conduct other regulated activities, eg, securities margin financing and dealing in stock options. These business lines may also have funding needs under market stress.

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63. Stress test, assessment results and follow-up actions should be promptly reviewed and approved by the futures broker's senior management and provided to the SFC upon request.

Notification requirements

64. A futures broker must notify the SFC in writing within one business day of becoming aware of any of the following matters:

    (a) it exceeds the quantitative benchmark in paragraph 40;

    (b) it assesses that:

        (i) any client or group of connected clients identified under paragraph 60(b) might not be able to settle the projected overloss (total projected overlosses in the case of a group of connected clients) of the client or the group of connected clients; or

        (ii) its ELC or available funding would not be adequate to absorb the aggregate impact of the amounts referred to in paragraph 60(c)(i) and (ii); or

    (c) it fails or will fail to meet any margin call from any counterparty.

65. A futures broker must include in the notification to the SFC filed under paragraph 64 full details of the matter, including:

    (a) in case of a notification filed under paragraph 64(a),

        (i) the reasons for exceeding the benchmark and any significant trend in the exposure to client positions with concessionary margining;

        (ii) any risk mitigating measures it has taken, is taking or will take to reduce any excessive exposure to client positions with concessionary margining; and

        (iii) any follow-up action it has taken, is taking or will take to prevent settlement failure or non-compliance with the minimum liquid capital requirements under the FRR;

    (b) in case of a notification filed under paragraph 64(b),

        (i) the relevant stress test results referred to in paragraph 60(b)[24] or (c)[25] and the results of the related assessment performed under paragraph 60(d); and

        (ii) any follow-up action it has taken, is taking or will take, including its contingency plan to prevent settlement failure, insolvency or non-

[24] In the case of notification under paragraph 64(b)(i).
[25] In the case of notification under paragraph 64(b)(ii).

compliance with the minimum liquid capital requirements under the FRR and any risk mitigating measures to reduce any excessive exposure to the client or group of connected clients or proprietary positions concerned; and

(c) in the case of a notification filed under paragraph 64(c), the reasons for the failure or potential failure, and any measures it has taken, is taking or will take to rectify or prevent the failure.

Transitional arrangements

66. During the 12-month period from the commencement date of these Guidelines, a futures broker which does not:

(a) incorporate client risk limits into its risk management system, order management system or trading platform in accordance with paragraph 21(d); or

(b) carry out stress tests using an assumed stress scenario designed in accordance with paragraph 56,

due to the incomplete development of the related system should adopt interim compensating measures to meet the risk management objective of the requirement referred to in subparagraph (a)[26] or (b)[27] (as the case may be).

[26] For example, monitoring compliance with client risk limits manually.
[27] For example, conducting stress tests using prudent simplified stress scenarios.