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Topic 6

Licensing Exam Paper 3

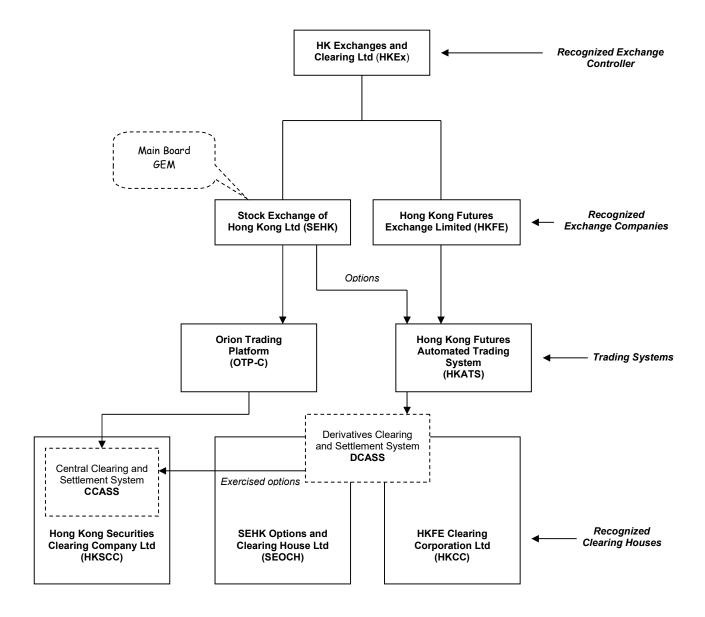
Payment Obligations

#### 1. PARTCIPANTSHIP

#### 1.1 Hong Kong Futures Exchange Limited (HKFE) Participantship

- To trade on the Hong Kong Futures Exchange, a licensed corporation/registered institution must become an HKFE Participant
- All HKFE Participants must be licensed/registered for Type 2 regulated activity (dealing in futures contracts)
- An applicant for HKFE participantship must:
  - be a Hong Kong incorporated company
  - > fulfil the FRR requirements
  - pay all required HKFE fees
  - acquire an HKFE trading right
- There are four categories of HKFE Participant:
  - Trader entitled to trade in futures contracts and/or options contracts on his own account only
  - Broker entitled to trade in futures contracts and/or options contracts
     on his own account and as agent of an HKFE Participant
     for the sole purpose of concluding trades on HKFE markets
  - Futures entitled to trade in futures contracts and/or options contracts
     Commission on his own account, for the account of other HKFE
     Merchant Participants and for the account of any other persons
  - Merchant Trader
     Trader
     entitled to trade in futures contracts and/or options contracts only on its own account and only ancillary to its principal business or that of its holding company
- With the Trader category, the ownership of share and loan capital, as well as the management and control, must be effectively vested in one individual

# 1.2 Trading Through the Hong Kong Futures Automated Trading System



- Each HKFE Participant must be approved by and registered with HKFE to trade through HKATS
- Each HKFE Participant must be approved by HKFE for trading each specific type of futures contract product
- Matched buys and sells are transmitted to HKCC for registration and clearing

#### 1.3 HKFE Clearing Corporation Limited (HKCC) Participantship

- Every HKCC Participant must be a HKFE Participant
- Applicants for HKCC participantship must:
  - be HKFE participants
  - operate under the same name which it is registered under as an HKFE Participant
  - > satisfy FRR requirements
  - agree to abide by HKCC Rules
- An HKFE Participant can register with the HKCC as either a General Clearing Participant or a Clearing Participant
- An HKFE Participant which is not a HKCC Participant must clear its futures trades through a General Clearing Participant

#### Rights to record, register and clear through HKCC

Rights	General Clearing Participant	Clearing Participant
Record, register and clear contracts entered by itself with HKCC	Yes	Yes
Record, register and clear contracts with HKCC for others	Only for contracts of other Clearing Participants and Non- Clearing Participants with appropriate clearing agreement	Only for contracts of other Clearing Participants with HKCC approval

- HKCC Participants may have the following types of account:
  - House Account: records proprietary trades and positions margined on a net basis
  - Omnibus Client Account: records, on an omnibus basis, client trades and positions margined on a gross basis
  - Individual Client Account: records trades and positions for an individual client (margined on a net basis)
  - Client Offset Claim Account: records positions of individual clients of an offset nature. Maintained on a gross basis but margined on a net basis
  - Market Maker Account: records and maintains positions from market making activities conducted by a HKCC Participant. Margined on a net basis
- HKCC Participants use the Omnibus Client Account as the default account for their trades – positions are maintained on a gross long and short basis

#### HKCC allows position closing between the following:

Products	Ratio
HSI futures and Mini-HSI futures	1 HSI to 5 mini-HSI futures
HSI options and Mini-HSI options	1 HSI to 5 mini-HSI options
HSCEI* futures and Mini-HSCEI futures	1 HSCEI to 5 mini-HSCEI futures
HSCEI options and Mini-HSCEI options	1 HSCEI to 5 mini-HSCEI options

<sup>\*</sup>HSCEI: Hang Seng China Enterprises Index

#### 2. CONTINUING OBLIGATIONS

#### 2.1 Continuing Obligations of HKFE Participants

- Every HKFE Participant is obliged to:
  - Adhere strictly to provisions of the SFO, the HKFE Rules and any stipulated conditions of the Participantship
  - ➤ Hold at least one HKFE trading right
  - > Be a Hong Kong incorporated company
  - Become a HKCC Participant if it intends to clear its own trades, or if a nonclearing participant, sign an agreement with a General Clearing Participant
  - Comply with the FRR
  - Comply with all requirements of HKATS
- Every HKFE Participant must notify the HKFE in writing immediately, upon:
  - Breach of HKFE Rules, SFO, subsidiary legislation or any conditions imposed upon it
  - Initiation of receivership proceedings or winding up of HKFE Participant
  - Bankruptcy of any directors
  - Exercise of any disciplinary measure against it
  - Any failure of its HKATS equipment or other business equipment/systems
- Every HKFE Participant must:
  - Provide HKFE with any information requested by an exchange, regulatory authority or an organisation with an information sharing agreement with the HKFx
  - Upon request of the HKFE Chief Executive, submit records, statements, documents and telephone recordings required by the Code of Conduct

- HKFE Participants must NOT:
  - Carry out a trade that will create or maintain an artificial price
  - Create a false or misleading appearance of active trading
  - Enter into or carry out any fictitious/artificial transaction
  - Create a corner or otherwise deal for the purposes of manipulating prices (whether in futures or underlying instruments)
  - Allow firm to be involved in any unlawful dealing (eg gambling)
- HKFE Participants may not assign, sell, transfer or pledge their privileges as Participants
- No participant may resign its participantship except with prior written approval of HKFE Board

## 2.2 Financial Requirements of HKFE Participants

- Every HKFE Participant must comply with the Financial Resources Rules (FRR)
- If there is any discrepancy between the financial resources requirements of the HKFE Rules and the FRR, the more stringent requirements will prevail
- The HKFE must notify the SFC when:
  - An HKFE Participant fails to meet financial resource requirements; or
  - There is any financial irregularity that may indicate that the HKFE Participant has financial problems

# 2.3 Continuing Obligations of HKCC Participants

- HKCC Participants must:
  - Comply with the FRR and HKCC Rules
  - Make regular financial returns to the HKCC
  - Keep HKFE Participantship in good standing
  - Comply with SFO at all times
  - Observe position limits set by HKCC and HKFE
  - Not sell, transfer, pledge or charge their HKCC Participantship
  - Make required deposits to the HKCC Reserve Fund
  - Maintain technology to gain access to DCASS and Common Collateral Management System (CCMS)
  - Keep all records in relation to each contract for at least 7 years following termination of a contract
- Each HKCC Participant is assigned gross and net position limits by HKCC in accordance with its liquid capital
- Gross and net position limits are calculated as latest value of liquid capital times a factor specified by HKCC: 6 for gross and 3 for net
- Gross and net margin liabilities cannot exceed the gross and net position limits

#### 2.4 Financial Resources Requirements of HKCC Participants

- **General Clearing Participants** must maintain liquid capital of not less than required liquid capital (FRR) or HK\$20 million, whichever is greater
- Clearing Participants must maintain liquid capital of not less than required liquid capital (FRR) or HK\$5 million, whichever is greater

### 2.5 Trading Rules

- All futures trading shall be conducted on HKATS
- Chief Executive of HKFE can ban anyone from using HKATS
- All futures trading must be through the HKFE facilities during trading hours
- No HKFE Participant shall knowingly take the opposite side of a client order, unless the following requirements are met:
  - The client has given consent in writing
  - The trade has been bid, offered and reported as laid down in the Board of HKFE procedures
- An HKFE Participant must not bid/offer to confuse other HKFE Participants or fail to confirm a transaction
- HKFE Participants must not disclose information of buy/sell orders in hand and pending for execution to any party except HKEX staff
- Block trades not executed in the prescribed manner or within prescribed trading hours will not be considered valid trades
- An error trade can only be cancelled when:
  - The trade takes place on HKATS outwith the price parameters set by HKFE
  - The trade is notified to the HKFE within 10 minutes of the trade being made; and
  - The parties to the error trade consent to its cancellation

#### 2.6 Know Your Client

- HKFE Participants must obtain and maintain sufficient detail on, and information about, each client, identifying the ultimate beneficiary for each transaction
- When HKFE Participants are unable to supply client identity information to the HKFE, when requested, they may be forced to close out any or all open contracts relating to those clients
- KYC requirements also apply to omnibus accounts each HKFE Participant must obtain from each client who uses the omnibus account, the names and details of those persons who are ultimately beneficially interested in the omnibus account

#### 2.7 **Block Trades**

- Block trades are large buy/sell orders privately negotiated outwith the public auction market
- Block trades must satisfy the following criteria:
  - Must be in block trade contracts, as designated by HKFE
  - Must be at or above the minimum volume threshold. Minimum thresholds  $\triangleright$ are:

Stock index futures/stock futures 100 contracts Stock index options 100 contracts 50 contracts Currency options **HIBOR** futures 80 contracts RMB currency futures 50 contracts 50 contracts Treasury bond futures Metal futures traded on the London Metal Exchange 50 contracts

- Participants cannot aggregate separate orders to meet minimum volume thresholds
- Block trades must be negotiated during trading hours
- Once a block trade has been negotiated, it must be immediately executed on HKATS via the block trade facility
- The price of a block trade must lie within one of the following prices or price ranges:
  - Between whichever is the higher and lower of:
    - Highest traded price for the day
    - Lowest traded price for the day
    - Prevailing bid price; and
    - Prevailing ask price
  - At trade price if only one trade price available and no prevailing bid/ask price available
  - At prevailing bid price if only prevailing bid price available and no prevailing ask/traded price available
  - At prevailing ask price if only prevailing ask price available and no prevailing bid/traded price available
  - At a fair and reasonable price if no other prices are available
- Board of HKFE has absolute discretion to accept/reject an executed price for a block trade
- In certain circumstances, an HKFE Participant may need to deposit a special block trade margin
- The quantity of a block trade is taken into account when calculating the traded volume of contracts traded on HKFE
- Block trades are identified in the ticker window of HKATS by the symbols EMP 1 BR or EMP D BR

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 HKFE Participants must record block trades through a telephone recording system, keeping the recordings for at least 3 months

#### 2.8 Pre-trade Risk Management System

- A system developed to follow global regulatory directions, including those from IOSCO
- Helps clearing participants avoid rapid or unintended excessive positions developing due to erroneous trading algorithms

### 2.9 Position Monitoring

- Under an MOU signed between SFC and HKEx, HKEx is required to monitor positions or unusual price/volume fluctuations in futures contracts, options and derivative products
- HKEx conducts cross-market surveillance, sending daily reports to the SFC covering:
  - Large open positions for all futures and index options contracts
  - Risk concentrations on HSI and Mini-HSI futures and options contracts
  - Market activity on HSI and Mini-HSI futures contracts for the extended sessions
  - Position deltas for HSI and Mini-HSI futures and options contracts delta measures the amount by which an option's price (premium) is expected to change for a one-unit move in the price of the underlying instrument

# 2.10 Contracts Limits and Reportable Positions

- Under the SFC's Contracts Limits Rules, no person may hold or control HKFE traded futures contracts beyond the prescribed limits
- A person may be authorised to hold or control futures contracts in excess of the prescribed limit for a specified period
- For reportable positions, a written report must be made within one business day
  of reaching the reportable threshold and on each succeeding day that the position
  continues to be held. Failure to comply is an offence

#### 3. CLEARING AND MARGIN

#### 3.1 Settlement Counterparties

- Once a trade is matched on HKATS, it is moved to the DCASS where HKCC, on accepting the trade for clearing, takes over the role of counterparty to each transaction – the legal process known as **novation**
- Clearing participants are able to effect close out transactions through DCASS terminals
- HKCC calculates margin, variation adjustment and trading fees at the end of each trading day
- If a clearing participant does not have sufficient cash or collateral on deposit with the HKCC, a direct debit to the participant's designated bank account through the Direct Margin Debiting System (DMDS) will be performed
- HKCC Participants' margin deposits must be in the form of:
  - Cash
  - Exchange Fund Bills/Notes issued by the Hong Kong Government
  - US Government Treasury Bills or Notes

#### 3.2 Default

- HKCC has prepared contingency plans for an HKCC Participant defaulting on its obligations, including
  - Closing out, settling and/or selling any or all of the open contracts registered in that HKCC Participant's name
  - Suspending HKCC participantship
  - Realising deposited non-cash collateral and applying proceeds to amounts due to HKCC
  - **Executing a buy-in** or borrowing the underlying asset for delivery to the HKCC Participant
- If the defaulting HKCC Participant's obligation cannot be settled after the above actions, the HKCC **Reserve Fund** can be used to settle the outstanding amounts
- Under no circumstances will customer-segregated margin deposits held by HKCC for an HKCC Participant be used to cover either a house or customer default of another HKCC Participant

# 3.3 Margin Requirements

- HKCC determines the level of margin required from each HKCC Participant on its open positions using a risk-based algorithm
- HKCC has the right to increase the amount of margin to be paid by any HKCC Participant at any time

#### **Client's Minimum Margin**

- HKFE sets the minimum margin required to be collected by each HKFE Participant
- No HKFE Participant may deal for a client until the client has posted the minimum margin
- For established clients, limited exceptions are allowed where:
  - A call for minimum margin must be issued by close of business for a new transaction
  - The minimum margin is due no later than the next business day; and
  - New positions are not established until overdue minimum margins are settled
- HKFE Participants **may demand higher levels of margin** from their clients to protect against potential losses

#### 3.4 Variation Adjustment Requirements

- Marking-to-market assesses the unrealised profit or loss per contract as if it were realised on a daily basis and will result in a variation adjustment
- At the end of each business day, the HKCC calculates each HKCC Participant's liabilities such as margin, trading fees and variation adjustment, paying or collecting cash from each HKCC Participant as appropriate
- For cash collateral, a cheque received in good faith may be treated as cash, if there is no reason to suspect that it will not be honoured

#### **Client's Variation Adjustment Requirements**

- HKFE Participants must also collect mark-to-market margins from their clients on a daily basis, with profits/losses transferred from/to to the HKCC Participant's CCMS (Common Collateral Management System) Collateral Account
- If losses take the account equity below the minimum (maintenance) margin level, the client will receive a margin call and will have to contribute funds to take the account back to the minimum (initial) margin level
- HKFE Participants must notify HKFE if any client fails to meet two or more successive margin calls or demands for variation adjustment which in aggregate exceed HK\$150,000

# 3.5 Holiday Margin Requirements

 HKCC may temporarily increase margin requirements before a Hong Kong holiday period to guard against market risks that may arise during the holiday period when some major markets are open

#### 3.6 System for Calculation of Margin

- To calculate margin, HKCC uses a system called Portfolio Risk Margining System of HKEx (PRiME)
- To determine the margin level of each futures contract, HKCC studies historical prices
- PRiME is a SPAN compatible margin algorithm that determines margin requirements while considering major risk factors such as delta, gamma, vega and theta
- SPAN, or the Standard Portfolio ANalysis of Risk, determines maximum risk exposure of a portfolio over a one-day period under simulated market scenarios
- PRiME evaluates the risk exposure of a portfolio based on two factors:
  - Underlying instrument prices; and
  - Volatility of the underlying prices

#### **PRIME Arrays**

Scenario	Underlying Price Change	Volatility Change
1	Unchanged	Up
2	Unchanged	Down
3	Up 1/3 range	Up
4	Up 1/3 range	Down
5	Down 1/3 range	Up
6	Down 1/3 range	Down
7	Up 2/3 range	Up
8	Up 2/3 range	Down
9	Down 2/3 range	Up
10	Down 2/3 range	Down
11	Up 3/3 range	Up
12	Up 3/3 range	Down
13	Down 3/3 range	Up
14	Down 3/3 range	Down
15	Up by multiple of range	Unchanged
16	Down by multiple of range	Unchanged
17	Composite delta	N/A

- HKCC defines a range of underlying futures price changes and volatility changes it wishes initial margin to cover
- Each risk array generates the estimated profits or losses for one contract under 16 scenarios
- In scenario 17, the composite delta is computed for intra-commodity (inter-month) spread charge calculations

- Arrays 15 and 16 are specifically designed to establish practical margin levels for out-of-the-money options
- By ensuring that all open positions are marked to market, the system does not allow losses to accumulate

#### 3.7 Collection of Collateral by HKCC

- An HKCC Participant can use different classes of collateral to cover margin liabilities in the following order of priority:
  - Cash in settlement currency
  - Cash in any other currency approved by HKCC
  - Non-cash collateral maintained in the HKCC Participant's account
- Non-cash collateral can include:
  - Exchange Fund Bills or Notes
  - US Government Treasury Bills or Notes
- An accommodation charge may be levied by the HKCC when any margin liability is covered by non-cash collateral
- Any unauthorised pledging of securities belonging to an HKFE Participant's client(s) must be reported by the HKEx to the SFC

### 3.8 Mandatory Intra-day Variation Adjustment and Margin

- Following market open of the morning trading session, on each business day, HKCC will call for a mandatory intra-day variation adjustment and margin in respect of all open contracts held by HKCC participants
- All mandatory intra-day variation adjustments and margin must be paid immediately, on demand

# 3.9 Additional Margin and Intra-day Variation Adjustments

- HKCC is authorised to perform intra-day mark-to-market calculations and to call for immediate payment of variation adjustment
- Assessment is made on gross and net margin liabilities of all accounts of each HKCC Participant in DCASS at the close of the morning session
- HKEx is required to report to the SFC as and when it initiates an intra-margin call
- HKCC may effect an intra-day margin call when market price movements are particularly volatile – the guideline is when the applicable margin has been eroded by approximately 25%

#### 4. SETTLEMENT

### 4.1 Cash Settled Contracts and Physical Delivery Contracts

- Most products traded on the HKFE are cash settled contracts, with the remainder being physical delivery contracts
- With cash settled contracts, profits/losses will be credited/debited to the CCMS Collateral Account
- Physical delivery contracts are settled by:
  - Delivery of the underlying commodity or instrument by the seller; and
  - Payment of cash by the buyer
- For physical delivery, delivering sellers are matched with receiving buyers through an assignment process

# 4.2 Consequences of Failure to Comply with Delivery and/or Payment Obligations

- If an HKCC Participant fails to meet delivery and/or payment obligations, HKCC reserves the right to:
  - Impose a penalty on the defaulting participant for any late settlement
  - Execute a buy-in to purchase the required quantity of the underlying commodity/instrument for the defaulting seller
  - Borrow the required quantity for the defaulting seller
  - Purchase/borrow the required amount of currency to allow the defaulting buyer to settle
- Defaulting HKCC Participants must indemnify HKCC, HKFE and HKEx against all costs, fees, expenses, liabilities, losses and damages incurred by HKCC executing a buy-in or borrowing the underlying asset/currency

#### **Exchange of Futures**

- Two HKCC Participants may jointly request an "exchange of futures" when they
  enter into a physical delivery contract with each other for the sale and purchase
  of an underlying commodity
- If HKCC accepts the request, each of the two open contracts is deemed to have been closed out