



**CHARTERED INSTITUTE FOR
SECURITIES & INVESTMENT**

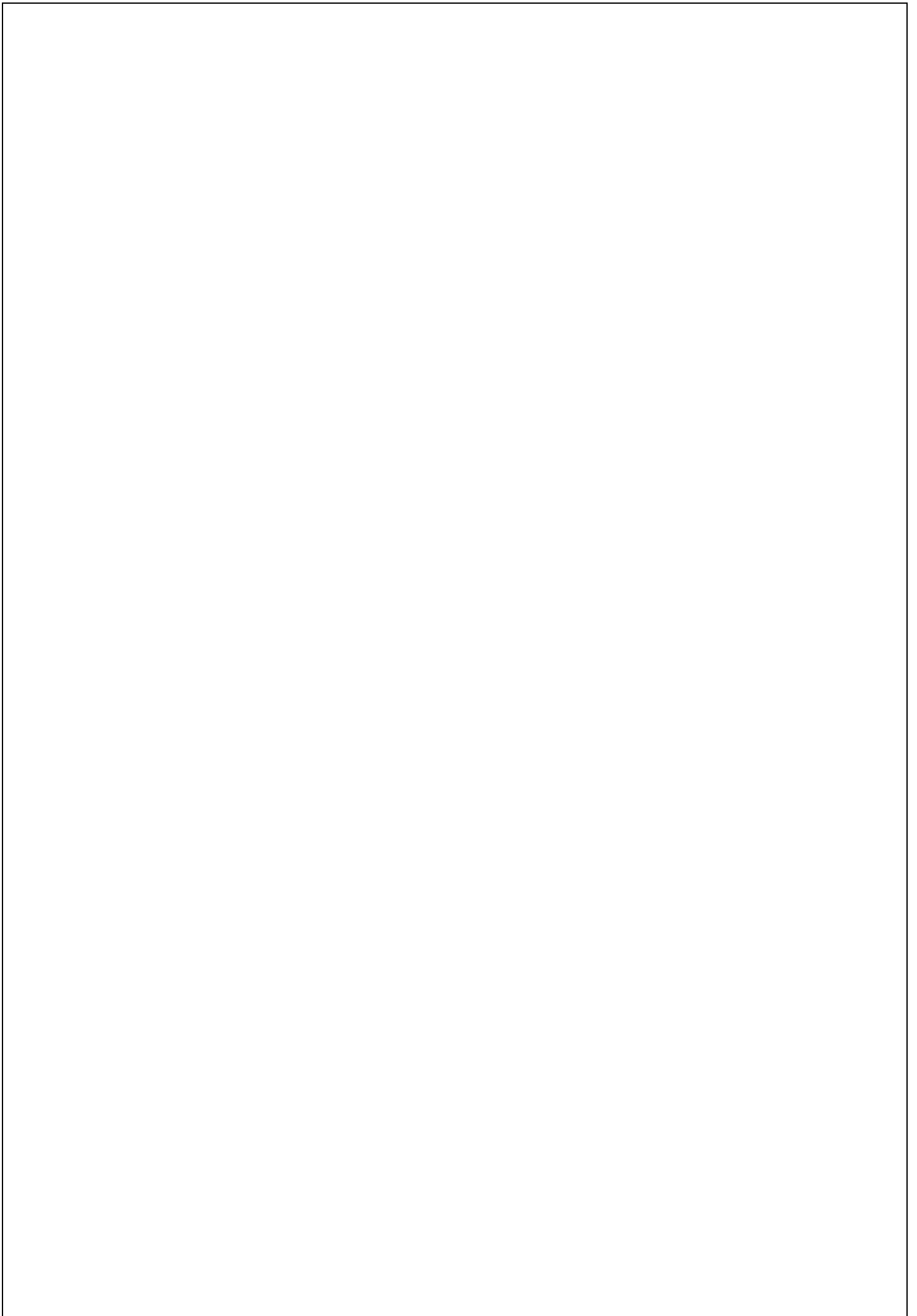
**CHARTERED INSTITUTE FOR
SECURITIES & INVESTMENT
(Formerly Securities & Investment Institute)**

**LEVEL 3
CERTIFICATE IN INVESTMENTS**

**UNIT 9
COMMODITY DERIVATIVES**

EFFECTIVE FROM FEBRUARY 2009

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OBJECTIVE OF THE EXAMINATION

The objective of the examination is to ensure that candidates have a basic knowledge of the regulations and practices in Commodity Derivatives, their underlying markets, trading and the principles of investment strategies.

The examination will test candidates' knowledge and understanding of the following elements:

- Introduction to Commodity Derivatives
- Underlying Commodity Markets
- Other Related Markets
- Exchange-Traded Commodity Futures and Options
- Principles of Exchange-Traded Commodity Futures and Options
- Principles of OTC Commodity Derivatives
- Principles of Clearing and Margin
- Delivery and Settlement
- Trading, Hedging and Investment Strategies
- Special Regulatory Requirements

ASSESSMENT STRUCTURE

A 2 hour examination of 100 multiple choice questions.

Candidates sitting the examination by Computer Based Testing may have, in addition, a small number of trial questions that will not be separately identified and do not contribute to the result. Candidates will be given proportionately more time to complete the test.

SYLLABUS STRUCTURE

The unit is divided into *elements*. These are broken down into a series of *learning objectives*.

Each learning objective begins with one of the following prefixes: **know**, **understand**, **be able to calculate** or **be able to apply**. These words indicate the different levels of skill to be tested. Learning objectives prefixed:

- **know** require the candidate to recall information such as facts, rules and principles
- **understand** require the candidate to demonstrate comprehension of an issue, fact, rule or principle
- **be able to calculate** require the candidate to be able to use formulae to perform calculations
- **be able to apply** require the candidate to be able to apply their knowledge to a given set of circumstances in order to present a clear and detailed explanation of a situation, rule or principle

EXAMINATION SPECIFICATION

Each examination paper is constructed from a specification that determines the weightings that will be given to each element. The specification is given below.

It is important to note that the numbers quoted may vary slightly from examination to examination as there is some flexibility to ensure that each examination has a consistent level of difficulty. However, the number of questions tested in each element should not change by more than plus or minus 2.

Examination specification 100 multiple choice questions		
Element number	Element	Questions
1	Introduction to Commodity Derivatives	8
2	Underlying Commodity Markets	13
3	Other Related Markets	6
4	Exchange-Traded Commodity futures and options	8
5	Principles of Exchange-Traded Commodity Futures and Options	13
6	Principles of OTC Commodity Derivatives	11
7	Principles of Clearing and Margin	10
8	Delivery and Settlement	7
9	Trading, Hedging and Investment Strategies	14
10	Special Regulatory Requirements	10
Total		100

CANDIDATE UPDATE

Candidates are reminded to check the 'Candidate Update' area of the Institute's website (www.sii.org.uk) on a regular basis for updates that could affect their examination as a result of industry change.

SUMMARY SYLLABUS

ELEMENT 1 INTRODUCTION TO COMMODITY DERIVATIVES

- 1.1 Development of Commodity Market Derivatives
- 1.2 General Principles of Derivatives

ELEMENT 2 UNDERLYING COMMODITY MARKETS

- 2.1 Physical Markets
- 2.2 Price discovery in Commodity Markets

ELEMENT 3 OTHER RELATED MARKETS

- 3.1 Other Commodity Markets
- 3.2 Foreign Exchange Markets
- 3.3 Money Markets
- 3.4 Equity Markets
- 3.5 Bond Markets

ELEMENT 4 EXCHANGE-TRADED COMMODITY FUTURES AND OPTIONS

- 4.1 Commodity Derivative Exchanges
- 4.2 Trading Platforms

ELEMENT 5 PRINCIPLES OF EXCHANGE-TRADED COMMODITY FUTURES AND OPTIONS

- 5.1 Commodity Futures Pricing
- 5.2 Commodity Options Pricing
- 5.3 Market Transparency, Trade Reporting and Monitoring
- 5.4 Order/Instruction Flow and Order Type
- 5.5 Trade Registration

ELEMENT 6 PRINCIPLES OF OTC COMMODITY DERIVATIVES

- 6.1 Concepts and Characteristics
- 6.2 ISDA Documentation
- 6.3 Commodity Forwards and Swaps
- 6.4 Commodity Options
- 6.5 Market Platforms and Trade Processing

ELEMENT 7 PRINCIPLES OF CLEARING AND MARGIN

- 7.1 Definition and Purpose of Clearing
- 7.2 Margin

ELEMENT 8 DELIVERY AND SETTLEMENT

- 8.1 Aspects of Settlement
- 8.2 Exercising Commodity Options

ELEMENT 9 TRADING, HEDGING AND INVESTMENT STRATEGIES

- 9.1 Commodity Derivative Users
- 9.2 Futures Spread Trading
- 9.3 Options Strategies
- 9.4 Commodity Hedging
- 9.5 Basics of Hedging Options
- 9.6 Comparison of Exchange -Traded and OTC Hedges
- 9.7 Structured Commodity Financing
- 9.8 Applications of Commodity Derivative Strategies

ELEMENT 10 SPECIAL REGULATORY REQUIREMENTS

- 10.1 Scope of Regulation
- 10.2 Exchange Rules and Regulations
- 10.3 Principles Based Regulation
- 10.4 Dealing with clients
- 10.5 Risk Management and Ethics
- 10.6 International Accounting Standards

ELEMENT 1 INTRODUCTION TO COMMODITY DERIVATIVES

1.1 Development of Commodity Market Derivatives

On completion, the candidate should:

- 1.1.1 *know* the origins of commodity derivative markets in providing a risk transfer mechanism between producers, consumers and other participants in commodity markets, including agricultural, precious and base metals, and energy markets
- 1.1.2 *understand* the roles of speculators, hedgers and arbitrageurs in commodity derivative markets
- 1.1.3 *understand* the reasons for the development of more complex and structured derivatives and who buys them

1.2 General Principles of Derivatives

On completion, the candidate should:

- 1.2.1 *understand* the basic concepts and fundamental characteristics of:
 - forward and futures contracts
 - contracts for differences
- 1.2.2 *understand* the basic concepts and fundamental characteristics of options contracts, including:
 - basic puts and calls
 - options on cash and futures
 - American, European
 - common path dependent and average pricing options
- 1.2.3 *understand* the risks and rewards associated with derivatives:
 - counterparty risk
 - market risk
 - liquidity risk
 - risks to the buyer of options
 - risks to the writer of options

1.2.4 *understand* the significance of gearing to exchange-traded derivatives:

- how margin facilitates gearing
- effect on derivative positions
- reward versus outlay
- reward versus risk

1.2.5 *understand* the principles and differences between the two major measures of exchange-traded liquidity (open interest and volume)

1.2.6 *understand* the main features and differences of OTC traded products in contrast to exchange-traded products:

- how an OTC traded product is traded
- standard versus bespoke OTC contracts
- set maturity or expiry dates versus bespoke OTC contracts
- margin requirements versus collateral
- central clearing versus counterparty risk
- liquidity from standard versus bespoke OTC contracts
- actively managed exchange-traded versus OTC hedging
- market transparency versus confidential transactions

1.2.7 *understand* the trading mechanisms by which OTC and exchange-traded markets meet:

- block trades
- against Actuals/ EFPs / EFSs

1.2.8 *understand* how to interpret basic options diagrams (long call, long put, short call, short put)

1.2.9 *understand* the main features and principles of commodity markets:

- economics – supply and demand
- geopolitical developments
- correlation and substitutions
- regulation, taxation, subsidies and tariffs
- spot and forward markets
- physical and derivative markets
- market participants
- quote driven versus order driven
- electronic trading, floor and voice

ELEMENT 2 UNDERLYING COMMODITY MARKETS

2.1 Physical Markets

On completion, the candidate should:

2.1.1 *understand* the main features of agricultural markets, and how the physical characteristics, supply and demand, and storage and transportation issues influence prices:

- grains
- timber and pulp
- soft commodities (e.g. coffee, cotton, sugar)
- citrus and orange juice
- livestock and crush contracts

- 2.1.2 *understand* the main features of metals markets and how the physical characteristics, supply, demand, storage and transportation issues influence prices in these markets, including:
- precious metals
 - non-ferrous (aluminium, copper, lead, tin, zinc)
 - iron and steel
 - scrap and secondary
- 2.1.3 *understand* the main features of energy markets and how the physical characteristics, supply, demand, storage and transportation issues influence prices in these markets, including
- crude oil
 - oil products (e.g. heating, gasoline, kerosene, synthetics, crack)
 - gas (e.g. Natural, LPG, LNG, GTL)
 - coal
 - bioenergy / biomass (e.g. ethanol, biodiesel, biofuels)
- 2.1.4 *understand* the main features of power markets and how the market characteristics, supply, demand, storage and transportation issues influence prices in these markets, including:
- electricity
 - others (solar, wind, fuel cells)
- 2.1.5 *understand* the main features of plastics markets and how the physical characteristics, supply, demand, storage and transportation issues influence prices in these markets, including:
- polyethylene, PVC, polypropylene, polystyrene, EVA
- 2.1.6 *understand* the main features of the carbon and emissions markets and how the market characteristic and supply and demand issues influence prices in these markets, including:
- legal and regulatory impacts
- 2.1.7 *understand* the main features of freight and shipping markets and supply and demand issues influence prices:
- freight contracts
 - cleared market contracts

2.2 Price discovery in Commodity Markets

On completion the candidate should:

- 2.2.1 *understand* the structure of the different commodity markets (energy, precious metals, base metals, agricultural, others) and how this impacts price discovery
- 2.2.2 *understand* the effect of short term speculation versus long term risk management in commodity derivative markets and the resultant relationship between near and far derivative prices
- 2.2.3 *understand* the impact of storable versus non-storable commodities, the role that storage facilitation plays in arbitrage and hence derivative price discovery and the impact of transportation constraints or costs on short term commodity derivative pricing
- 2.2.4 *understand* the impact of seasonality affects on supply and demand in and hence pricing of commodity derivative markets
- 2.2.5 *understand* the role of yield or production forecasts, the impact of short term inelasticity of supply and the current and the expected supply and demand balance on commodity derivative pricing
- 2.2.6 *understand* how good market liquidity and transparency leads to better commodity price discovery
- 2.2.7 *understand* how artificial restrictions (e.g. tariffs and barriers) impact commodity prices
- 2.2.8 *understand* the relationship of local to regional to global commodity markets
- 2.2.9 *understand* how and where futures prices provide unbiased estimates of future cash prices
- 2.2.10 *understand* how and where futures prices, rather than cash markets, are the primary point for price discovery
- 2.2.11 *be able to apply* futures prices to determine expectations of (future) cash market prices and cash market information to derive future price relationships

ELEMENT 3 OTHER RELATED MARKETS

3.1 Other Commodity Markets

On completion, the candidate should:

3.1.1 *understand* the key features of other commodity-related markets and the influences on supply and price:

- weather
- insurance

3.2 Foreign Exchange Markets

On completion, the candidate should:

3.2.1 *understand* the nature of the spot market and the trading and settlement of spot transactions:

- definition and purpose of the spot market
- contract value dates
- settlement periods and timescales

3.2.2 *understand* the nature, characteristics, markets and uses of currency forward contracts:

- definition and purpose of the forward market
- commercial and speculative uses
- hedging uses in portfolio management
- effect of time on open positions

3.2.3 *understand* the factors that determine forward rates and how forward rates are quoted:

- premiums and discounts
- forward points
- price quotes (may be tested by the use of simple calculations)
- effect of interest rate differentials
- the relationship between the spot market and the forward market

3.2.4 *be able to calculate* forward foreign exchange rates using interest rate differentials

3.3 Money Markets

On completion, the candidate should:

3.3.1 *know* the uses and requirements of inter-bank deposits:

- definition and purpose of the interbank deposit market

3.3.2 *understand* the determination of inter-bank offer rates

- LIBOR, LIBID and LIMEAN, EURIBOR

3.3.3 *be able to calculate* interest amounts owing or due from a time deposit

3.3.4 *be able to calculate*:

- forward rates of interest
- spot rates of interest
- discount factors

3.4 Equity Markets

On completion, the candidate should:

3.4.1 *know* the principal features and characteristics of ordinary shares and the markets on which they trade:

- voting rights
- ranking in a liquidation or for dividends
- corporate actions (rights and bonus issues, stock splits)
- physical or electronic markets
- quote or order driven
- intermediated or principal/crossing platforms

3.4.2 *understand* the relationship between commodity prices and shares related to the commodity markets (e.g. oil sector, mining sector)

3.5 Bond Markets

On completion, the candidate should:

- 3.5.1 *understand* the reasons governments issue bonds and the different categories and special features of bonds they issue (short, medium and long dated / undated / index linked / coupons and strippable)
- 3.5.2 *understand* the relationship between return and maturity shown by yield curves
- normal yield curves
 - inverted yield curves
 - flat yield curves
- 3.5.3 *know* the main features of the corporate bond market

ELEMENT 4 EXCHANGE TRADED COMMODITY FUTURES AND OPTIONS

4.1 Commodity Derivative Exchanges

On completion, the candidate should:

- 4.1.1 *understand* the structures, physical and electronic trading processes, clearing mechanisms and main products of the following exchanges:
- UK and EU: Liffe, LME, ICE Futures, PowerNext, EEX, RTS
 - North America: CME Group, CSCE, PHLX, NYBOT (ICE), NYMEX
 - Asia & Australasia: SFE, NCDEX, BCE, Kansai, CJCE, TCE, SCE Shanghai
 - Emerging Markets: BM&F, SAFEX, DME
- 4.1.2 *know* the membership structures (brokers, dealers and broker/dealers, general clearing, individual clearing and non-clearing) and their principal rights:
- executing trades for third parties
 - executing trades for their own account
 - executing trades for other members
 - capacity as broker
 - capacity as dealer
 - capacities of clearing members

4.2 Trading Platforms

On completion, the candidate should:

4.2.1 *know* the essential details of the trading mechanisms:

- electronic platforms, telephone and open outcry
- whether quote, order driven or hybrid markets
- how the trading host matches orders
- the order types accepted by the markets
- the trading strategies that are recognised
- record keeping

4.2.2 *know* the essential details of wholesale trading facilities:

- block trades and basis trades
- against actuals, exchange for physical, exchange for swaps

4.2.3 *understand* the significance, implications and uses of wholesale trading facilities

ELEMENT 5 PRINCIPLES OF EXCHANGE-TRADED COMMODITY FUTURES AND OPTIONS

5.1 Commodity Futures Pricing

On completion, the candidate should:

5.1.1 *understand* the mechanisms for futures pricing and the relationship with the underlying cash prices together with the significance of contributing factors:

- contango and backwardation
- price convergence at maturity
- the concept of fair value
- convenience yield
- terms structure and forward curves

5.1.2 *understand* the implications of the cost of carry and what may be included in these:

- what is cost of carry
- interest rates and asset yields
- storage costs, insurance and interest costs

5.1.3 *understand* the relationship between a future and its relevant cash market, price yield and interest rates

5.1.4 *understand* the importance of basis:

- behaviour at expiry
- significance of changes
- basis risk

5.1.5 *understand* the principles of cash/futures arbitrage:

- what should be included in arbitrage calculations
- cash and carry arbitrage
- when arbitrage opportunities exist
- arbitrage possibilities
- arbitrage risk

5.2 Commodity Options Pricing

On completion, the candidate should:

5.2.1 *understand* the factors of options pricing:

- option premium
- time value
- intrinsic value
- what affects time and intrinsic values
- in-the-money, out-of-the-money and at-the-money

5.2.2 *understand* the factors determining option premiums:

- volatility
- interest rates
- strike or exercise price
- time to expiry
- the underlying price

5.2.3 *be able to calculate* an option value using the Put /Call Parity Theorem:

- what is the Put/Call Parity Theorem
- identifying arbitrage opportunities
- risk free interest rate

5.2.4 *be able to calculate* the sensitivity of the option premium to changes in price by applying delta values to cumulative positions:

- what is delta
- uses of delta

5.2.5 *understand* the concept of gamma:

- what is gamma
- uses of gamma

5.2.6 *understand* the concept of theta:

- what is theta
- uses of theta

5.2.7 *know* the requirements of, and process for, premium payment:

- when paid, immediately or marking to market
- the roles of the clearing house and broker
- what the seller receives

5.3 Market Transparency, Trade Reporting and Monitoring

On completion, the candidate should:

5.3.1 *know* the purpose and requirements of trade reporting in markets:

- information to be reported
- process for reporting
- responsibility for reporting

5.3.2 *know* the advantages and main sources for Exchange Price Feeds:

- price transparency
- current bids and offers
- trade prices
- high/low prices
- last night closing price
- traded volume

5.3.3 *understand* the importance of monitoring volume and open interest information and settlement:

- purpose of monitoring open interest
- breach of credit limit
- guarantee in the event of settlement failure
- effect of client's failure to monitor open interest

5.4 Order/Instruction Flow and Order Type

On completion, the candidate should:

5.4.1 *know* the principles of order flow:

- how clients, brokers and exchange members are linked
- electronic and open outcry markets
- audit trail

5.4.2 *know* the definition, significance and differences between principal and agency orders (i.e. of dual capacity versus agency orders):

- dealing as a principal
- cross trading
- advantages to the client

5.4.3 *understand* the range of types of orders, their uses and effects:

- concept of immediate and resting orders
- correction of mistakes and errors
- types of order
- market order
- limit order
- market if touched order
- opening and closing orders
- good 'til cancelled
- immediate or cancel / fill or kill order
- stop order
- stop limit order

5.5 Trade Registration

On completion, the candidate should:

5.5.1 *know* the processes involved in trade registration, trade input and trade matching and differing requirements of electronic and open outcry markets

5.5.2 *understand* the purpose and importance of give-ups and allocations:

- reasons to allocate a trade to an account
- use of give-up agreements
- risk implications

5.5.3 *understand* the use of different types of accounts:

- use of house accounts
- customer accounts – segregated and non-segregated

ELEMENT 6 PRINCIPLES OF OTC COMMODITY DERIVATIVES

6.1 Concepts and Characteristics

On completion, the candidate should:

- 6.1.1 *understand* the basic concepts and fundamental characteristics of forwards, swaps, caps floors and collars
- 6.1.2 *understand* the basic concepts and fundamental characteristics of commodity- linked bonds and other structured products

6.2 ISDA Documentation

On completion, the candidate should:

- 6.2.1 *know* the main ISDA documents supporting OTC derivative activities:
- master agreements and bridges
 - credit support documentation
 - master give up agreements
 - 2005 commodity definitions
 - energy agreement bridge
 - energy annexes
 - protocols

6.3 Commodity Forwards and Swaps

On completion, the candidate should:

6.3.1 *understand* the mechanisms for OTC derivative pricing and the relationship with the underlying cash prices together with the significance of contributing factors:

- forward and forward/forward rates
- cash flow analysis and the zero curve
- the role of interest rates and yields
- other factors affecting pricing

6.4 Commodity Options

On completion, the candidate should:

6.4.1 *know* the common OTC option products:

- European, American, Bermudan, Asian
- swing options (single swing and multi swing)
- lookbacks and variants
- ratchets/cliquets
- concept of lookalikes

6.4.2 *understand* the mechanisms for option pricing and the relationship with the underlying cash prices together with the significance of contributing factors:

- structure
- arbitrage restrictions
- valuation inputs
- Black Scholes model
- binomial model

6.4.3 *know* the requirements of, and process for, premium payment:

- when paid
- credit exposure
- the collateral process

6.5 Market Platforms and Trade Processing

On completion, the candidate should:

6.5.1 *know* the trading mechanisms and platforms for common OTC Derivatives along with processing requirements and platforms:

- commodity products (forwards, swaps and options)
- energy products (forwards, swaps and options)
- confirmations and contracts
- internal and external reconciliations
- Swift

ELEMENT 7 PRINCIPLES OF CLEARING AND MARGIN

7.1 Definition and Purpose of Clearing

On completion, the candidate should:

7.1.1 *understand* the purpose of clearing and the function of novation:

- mutual offset system
- principal to principal
- broker's position

7.1.2 *understand* the risks usually associated with the clearing process:

- implications of default
- counterparty risk
- currency risk
- settlement risk

7.1.3 *understand* the role played by a clearing house in the clearing process:

- clearing house relationship with members in settlement
- payment systems between a clearing house and its members

7.1.4 *understand* the backing arrangements in place in the event of a member default:

- novation
- guarantee of performance of the contract
- default fund
- insurance cover
- members' contributions
- principal to buyer and seller
- control of funds to clearing members' accounts
- requirement for members to use an approved bank

7.1.5 *understand* the relationship between clearing members and non-clearing members:

- clearing versus non-clearing member
- use of general clearing members to clear trades
- use of clearing member to clear non-member trades

7.1.6 *understand* the principles of mutual and independent guarantees:

- mutual guarantees versus independent guarantees
- purpose of the guarantees
- funding of the default fund at the clearing house

7.1.7 *understand* the services offered by prime brokers as they relate to derivatives:

- borrowing and lending
- financing positions
- providing custody and safekeeping of assets
- clearing and settling trades
- administering onshore and offshore funds
- corporate actions
- capital introductions
- risk management
- regulation of prime brokers

7.1.8 *know* the importance of accurate and timely settlement processes for OTC products:

- deal tickets and term sheets
- trade confirmations
- reconciliation processes (internal and external)
- cashflow/asset movement instructions and control processes
- close out or maturity instructions
- the implications of spreadsheet environments

7.1.9 *know* the definition, purpose and uses of collateral and the major types of acceptable collateral (cash versus non-cash)

7.1.10 *understand* the potential impact of credit exposures on OTC positions:

- nature of OTC contracts
- mark to market and potential exposures
- term of OTC derivatives
- credit support agreements
- acceptable forms of collateral (certainty and currency of asset)
- letters of credit
- the collateral process (mark to market, hurdle, minimum cashflow, parties involved)

7.1.11 *know* the definition and significance of credit lines:

- purpose of credit lines
- what credit lines cover
- deals in excess of a credit line
- significance of collateral

7.1.12 *understand* how OTC products can be centrally cleared:

- eligibility and credit standing of counterparts
- constraints placed upon contract terms
- the margin processes
- advantages and uses of centralised clearing of OTC products

7.1.13 *know* which exchanges/clearing houses offer OTC clearing arrangements and for which major products

7.1.14 *know* the role of the clearing house as counterparty in delivery:

- when the clearing house becomes the counterparty
- role of the clearing house as counterparty
- role of the clearing house as guarantor
- counterparty risk
- assignment
- use of warrants in delivery

7.2 Margin

On completion, the candidate:

7.2.1 *understand* the various types of margin and their purposes:

- initial
- variation
- marking to market
- trigger levels
- offsetting long and short positions
- when paid
- types of transactions on which these are required
- counterparty risk
- counterparty for margin calls
- maintenance margining systems
- delivery margining systems

7.2.2 *understand* price limits and position limits and the effects of their application

7.2.3 *understand* how a firm deals with margin payments for its own positions and for its clients' positions through its books:

- use of house accounts
- use of client segregated accounts
- use of client non-segregated / pooled accounts
- advantages and risks

7.2.4 *understand* the difference between the clearing house's margin and that of the broker and the collection/payment process:

- amounts paid by clearing member and its clients
- acceptable collateral
- flow of margin
- letters of credit

7.2.5 *know* the means by which exchanges establish settlement prices:

- what are settlement prices
- closing ranges / prices

7.2.6 *understand* the nature and use of offsets for spread/spot month margining

7.2.7 *understand* why the clearing house might call intra-day margin

7.2.8 *know* methods of margining involving delta and SPAN and their implications:

- use of delta
- use of SPAN
- effect of price change in the underlying
- use of Net Liquidation Value

ELEMENT 8 DELIVERY AND SETTLEMENT

8.1 Aspects of Settlement

On completion, the candidate should:

8.1.1 *understand* the purpose of the Exchange Delivery Settlement Price (EDSP) and the factors affecting it:

- EDSP
- when is the EDSP set
- auction process
- contracts on which EDSP is set
- factors included in calculating the EDSP value
- reasons for exchange to set the EDSP
- no EDSP on the last notice day

8.1.2 *understand* the process of cash settlement and physically delivered contracts and the final payment processes for each:

- cash settlement
- physical delivery
- factors used in ascertaining the invoice amount
- who calculates the invoice amount
- differences between physical and non- physical delivery of
- commodity products

8.1.3 *understand* the importance and implications of the delivery of open contracts at expiry and the significance of the short position:

- purpose of open contracts
- physical versus cash delivery
- financials versus commodities
- avoidance of delivery – reasons and methods
- advantages and disadvantages of cash delivery
- asset delivery to the clearing house
- seller's choice of delivery time and method
- underlying asset delivery to the clearing house
- relevance of first notice day, last notice day and delivery day or period

8.1.4 *understand* the purpose and uses of LME closing contracts

8.2 Exercising Commodity Options

On completion, the candidate should:

8.2.1 *understand* the significance and implications of the exercise of options, the assignment of obligations, abandonment and expiry:

- purpose of assignment of obligations
- instigating an assignment notice
- receiving an assignment notice
- abandonment
- which options are most likely to be exercised before expiry
- exercise at expiry
- European, American and Asian options
- action upon exercise
- reasons for assignments
- effect of assignment
- advantages to the investor
- probability of assignment

8.2.2 *understand* the significance of automatic exercise:

- purpose of automatic exercise
- options that may be subject to automatic exercise
- reasons for clearing houses to adopt automatic exercise
- benefits to members and holders of long positions
- prevention of automatic exercise

ELEMENT 9 TRADING, HEDGING AND INVESTMENT STRATEGIES

9.1 Commodity Derivatives Users

On completion, the candidate should:

9.1.1 *understand* the categories of users of derivatives and their respective use of derivative products:

- hedger
- speculator
- arbitrageur

9.2 Futures Spread Trading

On completion, the candidate should:

9.2.1 *know* the distinctions between intramarket spreads and intermarket spreads and the scenarios in which they may be appropriate:

- use in differing market conditions
- situations resulting in profitability/loss
- swaps versus futures trading

9.3 Options Strategies

On completion, the candidate should:

9.3.1 *understand* the use of derivatives for speculation and hedging:

- speculation: long calls, short puts (bullish)
- speculation: short call, long puts (bearish)
- hedging: covered calls and protective puts
- recognise diagrammatic representation of each strategy
- maximum upside and downside for each strategy

9.3.2 *understand* and be able to create basic synthetic options and futures:

- synthetic long
- synthetic short
- synthetic put
- synthetic call

9.3.3 *understand* the characteristics and effects of vertical spreads:

- bull call and bear call spreads
- bull put and bear put spreads
- use in differing market conditions
- anticipating modest market rises/falls (bull/bear markets)
- risks

9.3.4 *understand* the characteristics and effects of long and short straddles and strangles:

- use in differing market conditions
- anticipating modest market rises/falls (bull/bear markets)
- risks

9.3.5 *be able to calculate* maximum profits/losses in simple examples of the above strategies

9.3.6 *understand* the uses, characteristics and effects of horizontal and diagonal spreads:

- use in differing market conditions
- anticipating modest market rises/falls (bull/bear markets)
- risks

9.4 Commodity Hedging

On completion, the candidate should:

9.4.1 *know* the characteristics and implications of long and short positions

9.4.2 *understand* basis, basis trading and basis risk:

- problems caused by changes in basis
- how changes in basis can be used to advantage by an investor

9.5 Basics of Hedging Options

On completion, the candidate should:

9.5.1 *understand* the application and effects of delta hedging and be able to establish an equivalent long/short position

9.6 Comparison of Exchange-Traded and OTC Hedges

On completion, the candidate should:

9.6.1 *understand* the advantages and disadvantages of using exchange-traded versus OTC products in hedge management:

- exposure characteristics versus contract specification
- ease/cost of closing OTC transactions versus exchange-traded positions
- margins versus collateral processes
- counterparty exposure versus centralised clearing
- price transparency
- best execution

9.7 Structured Commodity Financing

On completion, the candidate should:

9.7.1 *understand* how structured commodity financing enables producers to finance their activities:

- export pre-finance
- counter trade finance
- toll finance

9.8 Applications of Commodity Derivative Strategies

On completion, the candidate should:

9.8.1 *understand* the benefits of portfolio diversification gained through exposure to different commodities, as well as across asset classes:

- asset allocation within a commodity portfolio
- commodity exposure within a portfolio of other asset classes
- the use of commodity exposure for hedging

9.8.2 *be able to calculate* (through the knowledge gained above) a derivatives position with an underlying market equivalency, either to establish or to hedge a required exposure:

- long/short through futures
- long/short through single options
- long/short through option combinations
- long/short through simple OTC derivatives
- long/short through exchange-traded contracts
- limits to upside and/or downside exposures

(Sufficient contract/product information will be provided to candidates in the exam to enable the required calculations)

9.8.3 *understand* the uses and advantages of covered calls and covered puts:

- motivation for the writer of a covered call
- motivation for the buyer of a protective put
- risks / maximum losses
- use in different market conditions

9.8.4 *be able to apply* (through the knowledge gained above) to evaluate the relative attractiveness of derivative positions to specific client circumstances:

- producers
- suppliers
- shippers
- insurers
- banks
- private client investment portfolios
- high net worth / portfolios
- institutional asset managers
- corporate treasurers
- hedge funds

ELEMENT 10 SPECIAL REGULATORY REQUIREMENTS

10.1 Scope of Regulation

On completion, the candidate should:

10.1.1 *understand* in general terms the scope and purposes of regulation of commodities and commodity derivatives, the roles of, and interaction between, physical market regulators (e.g. Ofgem, FERC) and financial market regulators (e.g. FSA, CFTC, BaFIN) and the main activities of financial regulators.

10.1.2 *know* the main financial regulators regulating commodity derivatives, including the scope of their jurisdiction, the regulatory frameworks and the licensing regimes:

- The EU/UK framework: MIFID, FSMA, FSA, Regulated Activities Order
- The US Framework: CFTC, CFMA, NFA, Energy Policy Act 2004
- Examples of other regulators: for example BaFIN, The Forward Markets Commission, Dubai Financial Services Authority
- Memorandum of Understanding between FSA and CFTC
- Energy Policy Act 2004

10.1.3 *know* the Commodity Futures Modernization Act 2000 and the scope of CFTC Part 30 Rules (Foreign Futures and Segregation of Customer Funds)

10.1.4 *know* what is meant by commercial purpose and whether or not a commodity contract is within scope of MiFID

10.2 Exchange Rules and Regulations

On completion, the candidate should:

10.2.1 *understand* the requirement to adhere to the principles of market integrity, trading and membership rules and regulations of the main commodity exchanges and markets

10.3 Principles Based Regulation

On completion, the candidate should:

10.3.1 *understand* in general terms the importance of the principles based approach to regulation:

- client classification
- treating customers fairly
- suitability and appropriateness of the transaction/product best execution

10.3.2 *understand* the differences between rules based and principles based regulation

10.4 Dealing with clients

On completion, the candidate should:

10.4.1 *understand* the difference in regulation once clients move from pure physical commodity transactions to investment activities

10.4.2 *understand* the FSA client classification, Anti Money Laundering, identification and verification requirements and the financial crime issues that may arise when carrying on business with physical trading companies located in higher risk jurisdictions (e.g. risk assessment of clients, PEPs, third party payments)

10.4.3 *understand* the appropriateness and suitability assessment and the requirements to provide risk warnings to clients

10.4.4 *understand* the best execution, order handling and other client relationship / client-facing rules

10.4.5 *understand* the market abuse regimes of the key regulators

- the prohibitions on front running
- the potential market abuse in the commodity derivatives markets

10.4.6 *understand* the purpose of sanctions, the main regimes and how they impact on commodity derivatives trading

10.5 Risk Management and Ethics

On completion, the candidate should:

10.5.1 *know* the key risks and how they are managed and mitigated

- Market
- Credit
- Operational

10.5.2 *understand* how and when reputational risks, environmental and human rights issues may arise

10.5.3 *understand* the socioeconomic effects of buyer power

10.5.4 *understand* the management of conflicts of interest, personal account dealing issues and inducements

10.6 International Accounting Standards

On completion, the candidate should:

10.6.1 *know* the requirement under IAS 39 and FAS 133 to disclose the 'fair value' of all derivative positions held

10.6.2 *understand* the impact that fair value accounting may have on the derivative activities of banks and corporates