



**CHARTERED INSTITUTE FOR
SECURITIES & INVESTMENT**

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

**LEVEL 3
CERTIFICATE IN INVESTMENTS**

**UNIT 3
DERIVATIVES**

EFFECTIVE FROM APRIL 2009

OBJECTIVE OF THE EXAMINATION

The objective of the examination is to ensure that candidates have a basic knowledge of the regulations and practices in financial and 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 Derivatives
- Underlying Markets
- Exchange Traded Futures and Options
- Principles of Exchange-Traded Futures and Options
- Principles of OTC Derivatives
- Principles of Clearing
- Delivery and Settlement
- Trading, Hedging and Investment Strategies
- Special Regulatory Requirements

SYLLABUS STRUCTURE

The syllabus is divided into *elements*. These are broken down into sections of *learning objectives*.

Each learning objective begins with the prefix *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 candidates to recall information such as facts, rules and principles
- *understand* require candidates to demonstrate comprehension of an issue, fact, rule or principle
- *be able to calculate* require candidates to be able to use formulae to perform calculations
- *be able to apply* require candidates 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

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.

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 Derivatives	7
2	Underlying Markets	12
3	Exchange Traded Futures and Options	9
4	Principles of Exchange-Traded Futures and Options	16
5	Principles of OTC Derivatives	16
6	Principles of Clearing	10
7	Delivery and Settlement	7
8	Trading, Hedging and Investment Strategies	16
9	Special Regulatory Requirements	7
Total		100

ASSESSMENT STRUCTURE

A 2 hour examination of 100 multiple choice questions.

Candidates sitting the exam by Computer Based Testing will 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.

SUMMARY SYLLABUS

ELEMENT 1 INTRODUCTION TO DERIVATIVES

- 1.1 General

ELEMENT 2 UNDERLYING MARKETS

- 2.1 Government Debt/Corporate Debt
- 2.2 Foreign Exchange Contracts
- 2.3 Money Market Contracts
- 2.4 Equity Markets
- 2.5 Softs and Agriculturals
- 2.6 Base and Precious Metals
- 2.7 Energy
- 2.8 Exotics

ELEMENT 3 EXCHANGE-TRADED FUTURES AND OPTIONS

- 3.1 Exchanges
- 3.2 Trading Platforms
- 3.3 Clearing Mechanisms

ELEMENT 4 PRINCIPLES OF EXCHANGE-TRADED FUTURES AND OPTIONS

- 4.1 Futures Pricing
- 4.2 Options Pricing
- 4.3 Market Transparency, Trade Reporting and Monitoring
- 4.4 Order/Instruction Flow and Order Type
- 4.5 Trade Registration

ELEMENT 5 PRINCIPLES OF OTC DERIVATIVES

- 5.1 Concepts and Characteristics
- 5.2 ISDA Documentation
- 5.3 Forwards and Swaps
- 5.4 Credit Default Swaps
- 5.5 Other Swap types
- 5.6 Inflation swaps and Structured Products
- 5.7 Options
- 5.8 Market Platforms and Trade Processing
- 5.9 Settlement and Processing of OTC contracts
- 5.10 OTC Collateral Processes

ELEMENT 6 PRINCIPLES OF CLEARING

- 6.1 Definition and Purpose of Clearing
- 6.2 Margin
- 6.3 The Principles of Margin
- 6.4 Collateral/Credit

ELEMENT 7 DELIVERY AND SETTLEMENT

- 7.1 Aspects of Delivery
- 7.2 Exercising Options

ELEMENT 8 TRADING, HEDGING AND INVESTMENT STRATEGIES

- 8.1 Derivative Users
- 8.2 Futures Spread Trading
- 8.3 Options Strategies
- 8.4 Basics of Hedging (Futures)
- 8.5 Basics of Hedging (Options)
- 8.6 Comparison of Exchange Traded and OTC Hedges
- 8.7 Applications of Derivative Strategies

ELEMENT 9 SPECIAL REGULATORY REQUIREMENTS

- 9.1 Scope of Regulation
- 9.2 Rules Based versus Principles Based Regulation
- 9.3 US – Principal Differences Between EU and US Regulations
- 9.4 International Accounting Standards
- 9.5 Merger and Acquisition Activities

ELEMENT 1 INTRODUCTION TO DERIVATIVES

1.1 General

On completion, the candidate should:

1.1.1 *understand* the basic concepts and fundamental characteristics of:

- forward and futures contracts
- contracts for differences

1.1.2 *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

1.1.3 *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

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

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

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

Unit 3 – Derivatives

- 1.1.6 *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
- 1.1.7 *understand* the trading mechanisms by which OTC and exchange traded markets meet:
- block trades
 - EFPs / EFSs
 - Flex products
- 1.1.8 *understand* how to interpret basic options diagrams (long call, long put, short call, short put)
- 1.1.9 *understand* the main markets and stakeholders:
- FX, Money Markets, Equity, Fixed Income, Commodity, Regulators
 - Quote driven versus order driven
 - Floor versus voice versus electronic
 - Price Givers - Central Banks, Banks, major market corporates etc
 - Price Takers – Central Banks, Banks, corporates, asset managers, insurance companies, private clients, etc.
- 1.1.10 *understand* the role of liquidity providers
- Intermediaries – IDBs
 - Prime Brokers
 - FCMs
 - Executing Brokers
 - Clearing Brokers

ELEMENT 2 UNDERLYING MARKETS

2.1 Government Debt/Corporate Debt

On completion, the candidate should:

2.1.1 *understand* the reasons for the government issuing bonds

- public sector finance requirements
- finance long term debt
- role national debt in government finances

2.1.2 *understand* the different categories of gilts and their special features (short, medium and long dated / undated / index linked / coupons and strippable)

2.1.3 *know* the main overseas government bonds and their main features (T bonds/ JGBs/ Bunds / OATs):

- settlement
- coupon
- maturities
- countries

2.1.4 *understand* the relationship between return and maturity shown by yield curves:

- normal yield curves
- inverted yield curves
- flat yield curves

2.1.5 *know* the main features of the corporate bond market

2.1.6 *understand* the relationship between government and corporate bonds

- yield spread over governments
- high grade and high yield bonds
- bond ratings, transition and default

2.2 Foreign Exchange Contracts

On completion, the candidate should:

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

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

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

- what is a currency forward contract including Non-Deliverable Forwards
- commercial and speculative uses
- hedging uses in portfolio management
- effect of time on open positions

2.2.3 *understand* the factors that determine forward rates and how forward rates are quoted (in terms of premiums and discounts):

- what are premiums and discounts
- what are forward points
- how prices are quoted (may be tested by the use of simple calculations)
- effect of interest rates differentials
- the relationship between the spot market and the forward market

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

2.3 Money Market Contracts

On completion, the candidate should:

2.3.1 *know* the basic characteristics of Treasury Bills:

- term
- how and when issued
- issued at a discount
- promissory note
- redeemed at par

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

- what are inter-bank deposits
- why do they exist
- determination of inter-bank offer rates
- LIBOR, LIBID and, EURIBOR, EONIA

2.3.3 *know* the basic characteristics of Certificates of Deposit:

- term
- how and when issued
- issued at a discount/par
- redeemed at par/premium

2.4 Equity Markets

On completion, the candidate should:

Unit 3 – Derivatives

- 2.4.1 *know* the principal features and characteristics of ordinary shares and non-voting shares:
- ranking in a liquidation, for dividends
 - voting rights
 - partly paid shares and calls
- 2.4.2 *understand* the differences and principal characteristics of the following classes of preference shares: cumulative, participating, redeemable, convertible
- 2.4.3 *understand* equity warrants and equity options and know their differences:
- what is an equity warrant
 - what is an equity option
 - benefits to an investor or speculator
 - time to expiry
 - reasons to issue
 - who issues them
 - where traded
 - strike prices
 - effect of exercise
 - settlement
 - gearing against the underlying
- 2.4.4 *understand* the effect of corporate actions on equity warrants:
- rights issues
 - bonus issues
 - stock splits
 - mergers and acquisitions

2.5 **Softs and Agriculturals**

On completion, the candidate should:

2.5.1 *know* the main softs and agriculturals and the influences on supply:

- coffee, cocoa, white sugar, soya bean, wheat, rape seed oil, grains, livestock
- change in demand
- change in production, weather

2.6 Base and Precious Metals

On completion, the candidate should:

2.6.1 *know* the main base and precious metals and the influences on supply:

- copper, nickel, aluminium, zinc, tin, lead, gold and silver
- change in demand
- change in production
- marginal costs of mining
- changes in industry
- political or strategic

2.7 Energy

On completion, the candidate should:

2.7.1 *know* the main energy products and the influences on price (crude oil natural gas and emissions):

- change in demand
- change in production
- marginal costs of production
- delivery costs
- political or strategic
- OPEC

2.8 Exotics

On completion, the candidate should:

2.8.1 *know* the main products and the influences on price:

- freight
- emissions
- weather

ELEMENT 3 EXCHANGE TRADED FUTURES AND OPTIONS

3.1 Exchanges

On completion, the candidate should:

3.1.1 *know* the structures, physical and electronic trading processes, clearing mechanisms and main products of the following exchanges

- Liffe, LME, ICE Futures, EDX London, Eurex, MEFF, B-Clear
- CME Group, PHLX, CBOE, OneChicago, NYBOT (ICE), NYMEX
- SGX, Osaka, TSE, KOFEX

3.1.2 *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

3.2 Trading Platforms

On completion, the candidate should:

3.2.1 *know* the essential details of the trading mechanisms

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

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3.2.2 *know* the essential details of wholesale trading facilities

- block trades & basis trades
- exchange for physical, exchange for swaps
- flex facilities

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

3.3 Clearing Mechanisms

On completion, the candidate should:

3.3.1 *understand* the matching and clearing arrangements requirements:

- trade capture processes / order matching processes
- how contracts are delivered and settled
- physical or cash
- establishment of settlement price
- options into futures
- sellers initiate delivery

3.3.2 *understand* how the physical delivery methods for commodities operate and where they differ from other derivatives:

- warehouses, warrants and good delivery
- large position reporting
- price discovery – official and closing prices

3.3.3 *know* the main exchanges and contracts that have common settlement prices and links and the extent to which these allow investors to transfer open positions from one exchange to another:

- CME Group
- SGX

3.3.4 *be able to calculate* the profit/loss on delivery/expiry of futures and options

ELEMENT 4 PRINCIPLES OF EXCHANGE-TRADED FUTURES AND OPTIONS

4.1 Futures Pricing

On completion, the candidate should:

- 4.1.1 *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
- 4.1.2 *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
- 4.1.3 *be able to calculate* the fair value of a future from relevant cash market prices, yields and interest rates
- 4.1.4 *understand* the importance of basis:
- behaviour at expiry
 - significance of changes
 - basis risk
- 4.1.5 *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

4.2 Options Pricing

On completion, the candidate should:

4.2.1 *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

4.2.2 *understand* the factors determining option premiums:

- volatility
- interest rates
- strike or exercise price
- time to expiry
- the underlying asset price
- dividends / coupons

4.2.3 *be able to calculate* the Put / Call Parity Theorem:

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

4.2.4 *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

4.2.5 *understand* the following greeks and their uses

- delta
- gamma
- theta
- vega
- rho

4.2.6 *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

4.3 Market Transparency, Trade Reporting and Monitoring

On completion, the candidate should:

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

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

4.3.2 *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

4.3.3 *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

4.4 Order/Instruction Flow and Order Type

On completion, the candidate should:

4.4.1 *know* the principles of order flow:

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

4.4.2 *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

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

- 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

4.5 Trade Registration

On completion, the candidate should:

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

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

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

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

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

ELEMENT 5 PRINCIPLES OF OTC DERIVATIVES

5.1 Concepts and Characteristics

On completion, the candidate should:

5.1.1 *understand* the basic concepts and fundamental characteristics of:

- Forwards
- FRAs
- Caps
- Floors
- Collars

5.1.2 *understand* the basic concepts and fundamental characteristics of Interest Rate swaps and swaptions:

- underlying (fixed/fixed, fixed/floating, floating/floating)
- interest calculation (compared to bond markets)

5.1.3 *understand* the basic concepts and fundamental characteristics of FX and Currency forwards, swaps and swaptions:

- FX forward (outright quotes v pips)
- FX and Currency swap/swaption

5.1.4 *understand* the basic concepts and fundamental characteristics of Equity forwards, swaps and swaptions:

- equity baskets/index
- equity forwards
- equity swaps/swaptions

5.1.5 *understand* the basic concepts and fundamental characteristics of Commodity forwards, swaps:

5.1.6 *understand* the basic concepts of Total Return and Asset Swaps

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5.1.7 *understand* the basic concepts and fundamental characteristics of credit derivatives and the main credit events:

- default events
- ratings transitions

5.1.8 *understand* how Spread Betting differs from other contracts for differences

5.1.9 *understand* the basic concepts and fundamental characteristics of flex options:

- how they differ from standard exchange traded options
- how they differ from OTC options

5.2 ISDA Documentation

On completion, the candidate should:

5.2.1 *know* the main ISDA documents supporting OTC derivative activities:

- Master Agreements
- Credit Support Annex Documentation
- Confirmations
- ISDA Protocols

5.3 Forwards and Swaps

On completion, the candidate should:

5.3.1 *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

5.4 Credit Default Swaps

On completion, the candidate should:

5.4.1 *know* the common credit derivative instruments and their relationships to other markets and products:

- Credit default swaps
- Credit linked notes
- CDOs/CBOs
- Synthetic CDOs
- CDO2

5.4.2 *understand* the mechanisms for pricing credit derivatives and the relationships with asset swap prices

5.5 Other Swap types

On completion, the candidate should:

5.5.1 *know* common equity swap instruments and their relationship to other markets and products:

- total return
- volatility
- variance
- dividend swaps

5.5.2 *know* the common rates swap instruments and their relationships to other markets

- interest rate
- amortising
- accreting
- rollercoaster
- forward start

5.6 Inflation swaps and Structured Products

On completion, the candidate should:

5.6.1 *understand* how structured products utilise embedded derivatives to achieve a risk/return profile:

- convertible bonds
- index linked notes
- capital protected products
- callable/puttable bonds

5.6.2 *know* the basic purpose of the following

- commodity swaps
- property swaps
- environmental swaps

5.7 Options

On completion, the candidate should:

5.7.1 *know* the common OTC option products:

- European, American, Bermudan, Asian
- lookbacks and variants
- ratchets/cliquets

5.7.2 *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

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

- when paid
- credit exposure
- the collateral process

5.8 Market Platforms and Trade Processing

On completion, the candidate should:

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

- MarketWire
- SwapClear
- DTCC Deriv/SERV and TIW
- SwiftNet FpML
- TriOptima
- T-Zero
- DTCC AffirmXpress

5.9 Settlement and Processing of OTC contracts

On completion, the candidate should:

5.9.1 *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

5.10 OTC Collateral Processes

On completion, the candidate should:

5.10.1 *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)
- the collateral process (mark to market, hurdle, minimum cashflow, parties involved)

ELEMENT 6 PRINCIPLES OF CLEARING

6.1 Definition and Purpose of Clearing

On completion, the candidate should:

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

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

6.1.2 *understand* the risks usually associated with the clearing process and the implications of default:

- settlement risk
- counterparty risk
- currency risk

6.1.3 *understand* the role played by the clearing house in the clearing process:

- clearing house relationship with members in settlement
- use of protected payments systems
- automatic debit to members' accounts

6.1.4 *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

6.1.5 *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

6.1.6 *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

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

- borrowing and lending securities
- 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

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

6.1.9 *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

6.2 Margin

On completion, the candidate should:

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

- initial
- variation
- types of transactions on which these are required
- counterparty risk
- counterparty for margin calls
- maintenance margining systems
- SPAN

6.2.2 *understand* price limits and position limits and the effects of their application:

- price limits
- what are position limits
- who imposes limits
- purpose of price and position limits
- action in the event of breach

6.2.3 *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

6.2.4 *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

6.3 The Principles of Margin

On completion, the candidate should:

6.3.1 *understand* the differences between initial and variation margin and the significance of marking to market and withdrawal of variation margin profits:

- marking to market
- trigger levels
- offsetting long and short positions
- when paid

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

- what are settlement prices
- closing ranges / prices

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

- purpose of offsets
- what is spot month margin
- purpose of spot month margins
- purpose of spread margins

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

- purpose of intra-day margin
- when is intra-day margin paid

6.3.5 *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

6.3.6 *know* methods of margining centrally cleared OTC products and their implications:

- how exposure is calculated
- what margins are applied
- how and when margin payments are made

6.4 Collateral/Credit

On completion, the candidate should:

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

6.4.2 *understand* the significance of credit lines:

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

6.4.3 *understand* the mechanisms of collateral management

- Valuation and pricing
- Credit Support Annex (CSA)
 - Thresholds
 - Haircuts
 - Minimum Transfer Amount

ELEMENT 7 DELIVERY AND SETTLEMENT

7.1 Aspects of Delivery

On completion, the candidate should:

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

- purpose of EDSP
- auction process
- factors included in calculating the EDSP value
- reasons for exchange to set the EDSP
- no EDSP on the last notice day

7.1.2 *understand* the differences between cash settlement and physically delivered contracts and the final payment process:

- what is cash settlement
- what is physical delivery
- factors used in ascertaining the invoice amount
- who calculates the invoice amount
- differences between financial and commodity products

7.1.3 *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 & 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 & delivery day or period

7.1.4 *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

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

7.2 Exercising Options

On completion, the candidate should:

7.2.1 *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

7.2.2 *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 8 TRADING, HEDGING AND INVESTMENT STRATEGIES

8.1 Derivative Users

On completion, the candidate should:

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

- hedger
- speculator
- arbitrageur

8.2 Futures Spread Trading

On completion, the candidate should:

8.2.1 *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

8.3 Options Strategies

On completion, the candidate should:

8.3.1 *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

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

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

8.3.3 *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

8.3.4 *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

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

8.3.6 *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

8.4 Basics of Hedging (Futures)

On completion, the candidate should:

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

8.4.2 *understand* the importance of hedging ratios in Cheapest To Deliver bonds (CTDs):

- price factors
- highest implied repo rate
- number of contracts to hedge an exposure to the CTD bond
- duration based hedge ratios for non-CTD bonds

8.4.3 *understand* hedge ratio calculation for other short term interest rate futures:

- basis point value
- number of contracts to hedge an interest rate exposure

8.4.4 *understand* hedge ratio calculation for equity futures:

- stock and portfolio beta
- number of contracts to hedge an equity exposure

8.4.5 *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

8.5 Basics of Hedging (Options)

8.5.1 *understand* the application and effects of delta hedging and be able to establish an investor's net long/short position

8.6 Comparison of Exchange-Traded and OTC Hedges

On completion, the candidate should:

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

- exposure flexibility 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
- documentation
- settlement mechanism

8.7 Applications of Derivative Strategies

On completion, the candidate should:

8.7.1 *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
- Limits to upside and/or downside exposures

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

8.7.2 *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

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

- Private Client investment portfolios
- High Net Worth / portfolios
- Institutional Asset Managers
- Corporate Treasurers
- Hedge Funds

ELEMENT 9 SPECIAL REGULATORY REQUIREMENTS

9.1 Scope of Regulation

On completion, the candidate should:

9.1.1 *understand* in general terms the scope and purposes of regulation of derivatives and the main activities of regulators:

- Europe (MiFID, FSA, other regulators)
- US (Fed, SEC & CFTC)
- Far East (Hong Kong, Singapore and Japan)
- Orderly Markets
- Consumer Protection
- Education
- Combating Financial Crime
- Regulation of individuals, companies & exchanges
- Supervision
- Sanction processes
- Passporting regulated status
- Classifications/Exemption

9.2 Rules Based versus Principles Based Regulation

On completion, the candidate should:

9.2.1 *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

9.2.2 *understand* the differences between rules-based and principles based regulation

9.3 US – Principal Differences Between EU and US Regulations

On completion, the candidate should:

9.3.1 *know* the role of European regulation on EU derivative markets including the UK:

- MiFID and the Transparency Directive
- clients' money
- clients' accounts
- margining practices
- unregulated markets
- access to overseas markets
- access to overseas clients

9.3.2 *know* the role of the Securities and Exchange Commission (SEC) in the regulation of derivatives:

- what is the SEC
- regulated investments
- regulated exchanges

9.3.3 *know* the role of the Commodity Futures Trading Commission (CFTC) and the National Futures Association (NFA):

- what is the CFTC
- what is the NFA
- NFA delegated functions including “screening and registration of all firms and individuals who want to conduct futures-related business with the public.”
- regulated investments
- regulation of other entities
- dispute resolution

9.3.4 *know* the prohibitions of CFTC Part 30 (Foreign Futures and Segregation of Customer Funds)

9.3.5 *know* of the Commodity Futures Modernization Act 2000 and the principles governing trading of single stock futures in the US:

- physical delivery or cash settlement
- market regulators
- restrictions

9.4 International Accounting Standards

On completion, the candidate should:

9.4.1 *know* the requirement under IAS 39 to disclose the ‘fair value’ of all derivative positions held:

- the impact fair value accounting may have on the derivative activities of banks and corporates

9.5 Merger and Acquisition Activities

On completion, the candidate should:

9.5.1 *know* the need to include derivative positions in calculations affecting Merger & Acquisition activities