



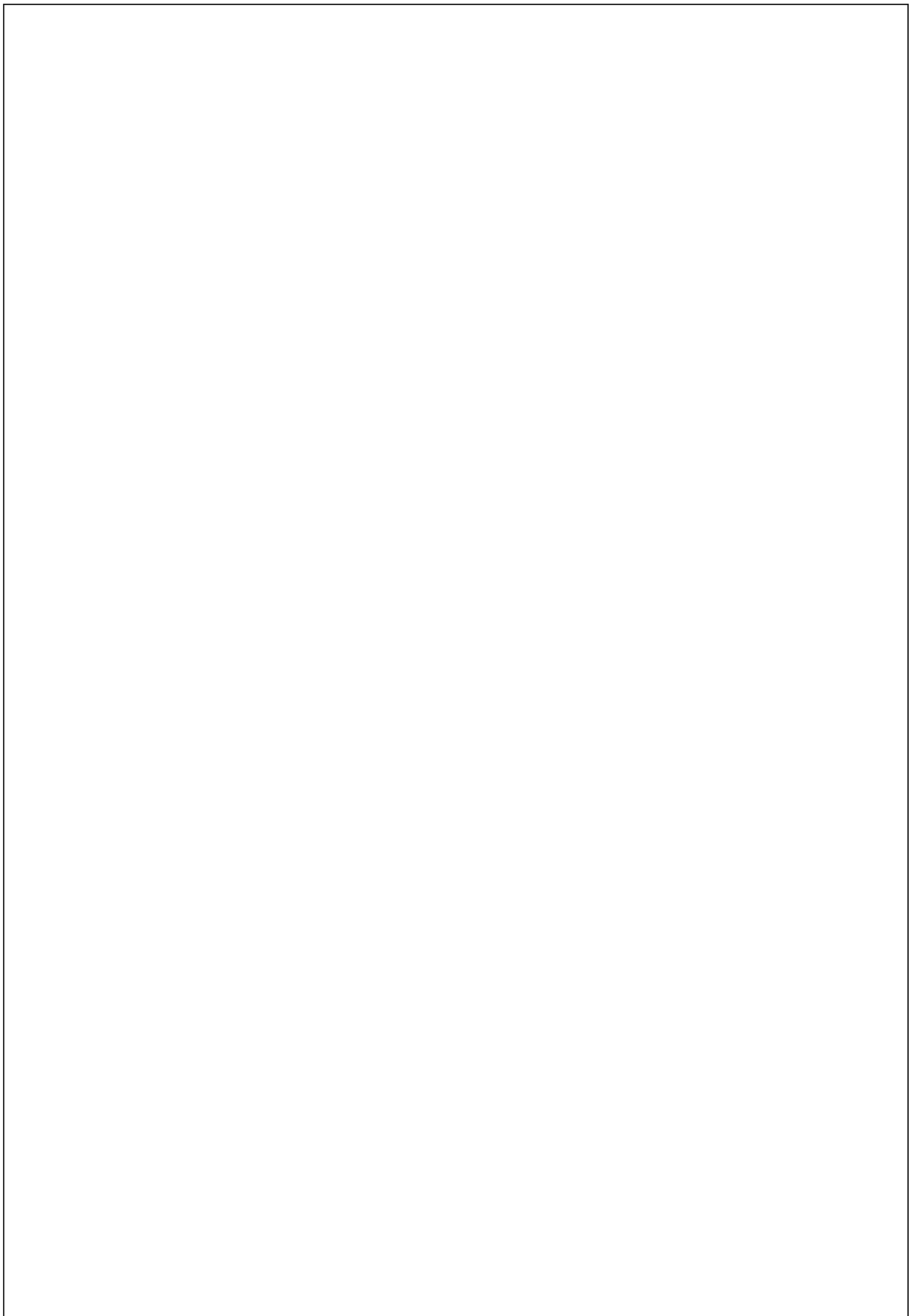
CHARTERED INSTITUTE FOR
SECURITIES & INVESTMENT

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

LEVEL 3
CERTIFICATE IN INVESTMENT
ADMINISTRATION

UNIT 5
EXCHANGE-TRADED DERIVATIVES
ADMINISTRATION

EFFECTIVE FROM MAY 2009



OBJECTIVE OF THE EXAMINATION

The objective of the examination is to ensure that candidates have an introduction to Exchange-Traded Derivatives as far as it relates to the needs of operations and administration staff.

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

- The History and Development of Derivative Markets
- An Introduction to Futures
- An Introduction to Options
- Derivative Use
- The Role of a Derivative Exchange
- The Role of the Clearing House
- The Basics of Margin
- Clearing and Settlement
- Derivative Regulation and Compliance
- Risk and Controls

ASSESSMENT STRUCTURE

A 1 hour examination of 50 multiple choice questions.

Candidates sitting the examination 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.

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 50 multiple choice questions		
Element number	Element	Questions
1	The History and Development of Derivative Markets	2
2	An Introduction to Futures	4
3	An Introduction to Options	4
4	Derivative Use	4
5	The Role of a Derivative Exchange	5
6	The Role of the Clearing House	3
7	The Basics of Margin	6
8	Clearing and Settlement	11
9	Derivative Regulation and Compliance	4
10	Risk and Controls	7
Total		50

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 THE HISTORY AND DEVELOPMENT OF DERIVATIVE MARKETS

- 1.1 The First Futures and Options Markets
- 1.2 Development of the Markets
- 1.3 Overview of the Exchange-Traded Derivatives and OTC Markets

ELEMENT 2 AN INTRODUCTION TO FUTURES

- 2.1 Characteristics of Futures
- 2.2 Basic Principles of Pricing Futures

ELEMENT 3 AN INTRODUCTION TO OPTIONS

- 3.1 Characteristics of Options
- 3.2 Basic Principles of Pricing Options

ELEMENT 4 DERIVATIVE USE

- 4.1 Hedging
- 4.2 Income Enhancement
- 4.3 Speculation
- 4.4 Asset Allocation
- 4.5 Arbitrage

ELEMENT 5 THE ROLE OF A DERIVATIVE EXCHANGE

- 5.1 Structure and Objectives of Exchanges
- 5.2 Trading Mechanisms
- 5.3 Market Membership
- 5.4 Overview of Major Markets
- 5.5 Overview of developing markets

ELEMENT 6 THE ROLE OF THE CLEARING HOUSE

- 6.1 Structure and Objective of Clearing Houses
- 6.2 Membership and Rules
- 6.3 Overview of Clearing Houses

ELEMENT 7 THE BASICS OF MARGIN

- 7.1 Initial Margin
- 7.2 Variation Margin
- 7.3 Default

ELEMENT 8 CLEARING AND SETTLEMENT

- 8.1 Payment and Receipt (Clearing House and Clearing Member)
- 8.2 The relationship between the Clearing Member and the Client
- 8.3 Deliveries
- 8.4 Global Clearing
- 8.5 Position and Close Out Management

ELEMENT 9 DERIVATIVE REGULATION AND COMPLIANCE

- 9.1 Regulation
- 9.2 Other Key Industry Regulation
- 9.3 Compliance

ELEMENT 10 RISK AND CONTROLS

- 10.1 Credit Risk
- 10.2 Market Risk
- 10.3 Operational Risk

ELEMENT 1 THE HISTORY AND DEVELOPMENT OF DERIVATIVE MARKETS

1.1 The First Futures and Options Markets

On completion, the candidate should:

- 1.1.1 *know* what attracted hedgers and speculators to early futures markets and the detractors of the early options markets
- 1.1.2 *know* how liquidity contributed to the development of the futures market

1.2 Development of the Markets

On completion, the candidate should:

- 1.2.1 *understand* the difference between commodity, energy and financial products
- 1.2.2 *know* why the volume of products traded has changed and why the use of derivatives is increasing (including market directives, electronic trading)
- 1.2.3 *know* the reasons for and the factors affecting the trend towards consolidation of:
 - exchanges
 - clearing houses
- 1.2.4 *know* the importance of links between derivative and stock exchanges using Eurex and NYSE Liffe as examples in terms of:
 - cost
 - management of risk
 - ease of access

1.3 Overview of the Exchange-Traded Derivatives and OTC Markets

On completion, the candidate should:

- 1.3.1 *know* the reasons for standardising contracts
- 1.3.2 *know* the similarities and differences between Exchange-Traded Derivatives and OTC traded products:
 - method of valuation, pricing and margining
 - settlement methods

ELEMENT 2 AN INTRODUCTION TO FUTURES

2.1 Characteristics of Futures

On completion, the candidate should:

2.1.1 *know* the definition of a futures contract:

- size
- tick size and value
- currency
- delivery period
- method of settlement

2.1.2 *understand* the underlying products and settlement process for the following:

- index futures
- interest rate and currency futures
- government bond futures
- equity futures
- commodities (metals/plastics/softs/agricultural)
- energy

2.2 Basic Principles of Pricing Futures

On completion, the candidate should:

2.2.1 *understand* how futures are priced and what fair value is

2.2.2 *understand* the use of price factors in relation to bond futures

2.2.3 *understand* the relationship between futures and underlying assets and time

ELEMENT 3 AN INTRODUCTION TO OPTIONS

3.1 Characteristics of Options

On completion, the candidate should:

3.1.1 *know* the definition of an options contract:

- call or put
- writer/granter or holder/taker
- size
- tick size and value
- strike price
- exercise styles and expiry dates
- methods of settlement

3.1.2 *understand* the underlying products and method of exercise for the following:

- index options
- interest rate and currency options
- bond options
- equity options
- commodity options (metals/plastics/softs/agricultural)
- energy options

3.1.3 *understand* the differences between the following style of options:

- European
- American
- Asian

3.1.4 *understand* the fundamental differences between futures and options contracts

3.2 Basic Principles of Pricing Options

On completion, the candidate should:

3.2.1 *understand* the fundamental influences on price:

- underlying price
- time to expiry
- volatility
- interest rates
- dividends

3.2.2 *understand* what is meant by in-the-money, out-of-the-money and at-the-money options

ELEMENT 4 DERIVATIVE USE

4.1 Hedging

On completion, the candidate should:

4.1.1 *understand* the concept of hedging and its use

4.2 Income Enhancement

On completion, the candidate should:

4.2.1 *know* the difference between covered and naked option writing

4.2.2 *know* the risk associated with income enhancement strategies

4.3 Speculation

On completion, the candidate should:

4.3.1 *understand* the effects of gearing when using derivatives as opposed to the underlying asset(s)

4.4 Asset Allocation

On completion, the candidate should:

4.4.1 *understand* how derivatives are used by fund managers in asset allocation

4.5 Arbitrage

On completion the candidate should:

- 4.5.1 *understand* the concept of arbitrage and its use

ELEMENT 5 THE ROLE OF A DERIVATIVE EXCHANGE

5.1 Structure and Objectives of Exchanges

On completion, the candidate should:

- 5.1.1 *understand* the role, aims and benefits of derivative exchanges
- 5.1.2 *Know the primary requirements of a regulated exchange*

5.2 Trading Mechanisms

On completion, the candidate should:

- 5.2.1 *understand* electronic and open outcry methods of trading
- 5.2.2 *understand* block, basis, exchange for physical (EFP) and against actuals (AA) trades
- 5.2.3 *know* the reasons and methods for “after hours” trading

5.3 Market Membership

On completion, the candidate should:

- 5.3.1 *understand* the categories of exchange membership and the rights and privileges thereto (Brokers, dealers, broker-dealers, non-clearing members and clearing members)
- 5.3.2 *understand* the way in which all market participants can access derivatives exchanges

5.4 Overview of Major Markets

On completion, the candidate should:

5.4.1 *know* the principal derivative exchanges across all major markets and the types of products traded:

- London (ICE Futures Europe, NYSE Liffe, LME)
- US (CBOE, CME Group) ICE Futures US
- Europe (Eurex),
- Asia Pacific (ASX, HKEx, SGX, TSE)

5.5 Overview of developing markets

5.5.1 *know* the principal developing derivative exchanges and the types of products traded:

- Brazil (BM&FBOVESPA)
- China (Dalian, Shanghai, Zhengzhou)
- Dubai (Dubai Gold & Commodities Exchange)
- India (National Stock Exchange, Multi Commodity Exchange)
- Korea (Korea Exchange)
- Mexico (M.D.F)
- Russia (Russian Trading System)

ELEMENT 6 THE ROLE OF THE CLEARING HOUSE

6.1 Structure and Objective of Clearing Houses

On completion, the candidate should:

- 6.1.1 *understand* the purpose of a clearing house and its relationship with the exchange
- 6.1.2 *understand* the process of novation

6.2 Membership and Rules

On completion, the candidate should:

- 6.2.1 *know* the requirements for clearing member status
- 6.2.2 *understand* the relationship between the clearing house and clearing member

6.3 Overview of Clearing Houses

On completion, the candidate should:

- 6.3.1 *know* the principal clearing houses and their major markets:
 - CME Group/OCC
 - LCH.Clearnet/Eurex
 - ICE Clear

ELEMENT 7 THE BASICS OF MARGIN

7.1 Initial Margin

On completion, the candidate should:

- 7.1.1 *know* the purpose of initial margin
- 7.1.2 *understand* the principles of SPAN and TIMS margin systems
- 7.1.3 *know* the common forms of collateral used to cover initial margin liabilities
- 7.1.4 *be able to calculate* basic initial margin on a given position

7.2 Variation Margin

On completion, the candidate should:

- 7.2.1 *know* the purpose of variation margin
- 7.2.2 be able to calculate variation margin
- 7.2.3 *know* the meaning of intra-day, spot and buffer margin calls

7.3 Default

On completion, the candidate should:

- 7.3.1 *know* the consequence of an inability to cover the margin in relation to the clearing house and the clearing member
- 7.3.2 *understand* the purpose of the clearing house default procedures and guarantee

ELEMENT 8 CLEARING AND SETTLEMENT

8.1 Payment and Receipt (Clearing House and Clearing Member)

On completion, the candidate should:

- 8.1.1 *know* the function of a clearing house in the delivery and settlement process
- 8.1.2 *know* the process for payments and receipts to and from the clearing house
- 8.1.3 *understand* the responsibilities of the clearing member to a clearing house

8.2 The relationship between the Clearing Member and the Client

On completion, the candidate should:

- 8.2.1 *understand* the different operational roles for both the client and the clearing member in respect of:
 - clearing of trades
 - reconciliations
 - payment of margin
 - contract settlement

8.2.2 *understand* the key risks for each party in respect of:

- clearing of trades
- reconciliations
- payment of margin
- contract settlement

8.3 Deliveries

On completion, the candidate should:

8.3.1 *understand* the key stages in the delivery process for the following cash and physically settled future/option contracts:

- index futures
- interest rate and currency futures
- government bond futures
- equity futures
- commodities (metals/plastics/softs/agricultural)
- energy

8.3.2 *understand* the following terms with respect to deliveries:

- tender
- exercise
- assignment
- EDSP
- last trading day
- notice day
- price factor

8.3.3 *be able to calculate* the invoice amount for both physical delivery and cash settlement

8.4 Global Clearing

On completion, the candidate should:

- 8.4.1 *understand* the advantages and disadvantages of global clearing
- 8.4.2 *know* the process flow for a trade under a global clearing arrangement
- 8.4.3 *understand* how exchanges and clearing houses handle give ups
- 8.4.4 *know* the definition and purpose of single currency settlement and average pricing
- 8.4.5 *understand* the benefits of entering into a Prime Brokerage relationship

8.5 Position and Close Out Management

On completion, the candidate should:

- 8.5.1 *know* the purpose, importance and key associated risks of managing positions in relation to:
 - house
 - segregated client
 - non-segregated client
 - clearing house/exchange
- 8.5.2 *understand* the following position management terms:
 - FIFO
 - LIFO
 - close outs
 - settlement busts
- 8.5.3 *understand* the impact of the following on open positions:
 - corporate actions
 - option exercises

ELEMENT 9 DERIVATIVE REGULATION AND COMPLIANCE

9.1 Regulation

On completion, the candidate should:

9.1.1 *understand* the key objectives and functions of documentation and agreements

9.1.2 *understand* the principal purpose of client agreements:

- risk warnings
- client classification
- know your client

9.1.3 *understand* the purpose of standard give up and clearing agreements

9.1.4 *know* the principal purpose of client money rules:

- segregation
- non-segregation

9.2 Other Key Industry Regulation

On completion, the candidate should:

9.2.1 *understand* the implications of the following:

- Capital Requirements Directive (CRD) based on Basel II
- Markets in Financial Instruments Directive (MiFID)

9.3 Compliance

On completion, the candidate should:

9.3.1 *understand* the role and significance of the compliance officer

9.3.2 *understand* the importance of controlled functions and clear definitions of staff responsibilities

ELEMENT 10 RISK AND CONTROLS

10.1 Credit Risk

On completion, the candidate should:

10.1.1 *know* the main characteristics of credit risk

10.1.2 *understand* the main methods for mitigating credit risk

10.2 Market Risk

10.2.1 *know* the main characteristics of market risk (energy, equities, interest rates, currencies, commodities, volatility, liquidity)

10.2.2 *know* the main methods for mitigating market risk

10.3 Operational Risk

10.3.1 *know* the main characteristics of operational risk

10.3.2 *know* the BIS definition of operational risk

10.3.3 *understand* the main methods for mitigating operational risk

10.3.4 *understand* the importance of managing risk in the following operational activities:

- allocation
- position limits
- margining
- collateral
- reconciliation
- close outs
- deliveries
- early exercise of options