



## SYLLABUS

### The ACI Diploma

(Prometric Code: 310-006)

### Examination delivered in ENGLISH and GERMAN

The ACI Diploma builds on the Dealing Certificate to ensure candidates have a good practical knowledge of the treasury and foreign exchange markets as a whole and of the linkages that exist between the different areas. In achieving this qualification, candidates will have obtained a fundamental knowledge of the mathematics and pricing relationships of the various instruments.

**In order to be eligible to take the ACI Diploma examination, candidates must have passed the ACI Dealing Certificate examination.**

There is some Financial Arithmetic, which explain the basic concepts involved in different calculation-type questions. Although not a 'topic pool' in its own right as the ones listed below, this Financial Arithmetic will allow candidates to

- define the 'time value of money'
- define 'simple' and 'compound' interest
- explain the differences between a rate of 'discount', a rate of 'interest' and a 'yield' , and calculate correctly the conversion from one to another
- describe the valuation of future cash flows and the principles behind the construction of a yield curve
- calculate correctly forward/forward interest rates, and explain their relationship to the yield curve
- list the different conventions for calculating 'day counts' and 'annual basis'.

Financial Arithmetic is used during different stages of the ACI Diploma.

The topic areas covered within the ACI Diploma are as follows:

## Section 1. Foreign Exchange

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**Overall Objective :** To explain the evolution and characteristics of the foreign exchange market, its instruments, and how they relate to each other.

**At the end of this section, candidates will be able to:**

- describe the evolution of the exchange rate system, looking at fixed and floating rate regimes
- describe the origins of the European Monetary System (EMS), and the evolution towards European Monetary Union (EMU)
- explain the basic dealing principles of spot foreign exchange
- calculate cross currency rates correctly

## Section 2. Money Market

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**Overall Objective:** To describe the characteristics of the money market, its relationship to other financial markets, and to explain the instruments involved and how they are traded

**At the end of this section, candidates will be able to:**

- explain the difference between a eurocurrency and a domestic currency
- list the different types of money market instruments, and how they relate to each other
- explain how the different money market instruments are traded
- list the different types of repos, their characteristics and differences, and explain how they are traded
- describe a foreign exchange swap, and its relationship with the relative spot price and interest rates
- calculate an outright forward value for one currency against another correctly
- list the relevant advantages of using different instruments in covering foreign exchange exposure
- explain the terms 'premium' and 'discount' in relation to forward foreign exchange
- explain the concept of a time option
- describe the risks involved in running an 'open' position and the practicalities involved
- calculate broken date prices and forward-forward swap prices correctly

## Section 3. FX Derivatives

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**Overall Objectives:** To explain the characteristics of the options market, the terminology used, and to describe simple option trading strategies. To explain the nature of an NDF, and to explain how they are used in the market place.

**At the end of this section, candidates will be able to:**

- describe the characteristics of an option
- explain the concept of an option as an 'insurance contract'
- explain the basic terminology of options, with particular reference to European and American options
- explain the differences between OTC and exchange traded options
- list the factors that determine premiums
- explain simple options strategies for both foreign exchange and interest rate options
- explain volatility trading options
- list some of the pricing models available, and describe their advantages/disadvantages
- describe the characteristics of an NDF
- list the ways and advantages of using this instrument

## Section 4. Short Term Interest Rate Derivatives

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**Overall Objectives:** To explain the mechanics of the futures market, and to describe the roles of the counterparties involved and their areas of responsibility. To explain the concept of an FRA and its origins, how it is used in the market place, how it is priced and to describe its relationship with other related instruments.

**At the end of this section, candidates will be able to:**

- describe the history of the futures market and its development
- list specific examples of a futures contract
- explain the different characteristics of currency and interest rate futures contracts, including Government bond futures
- explain the mechanics of pricing, trading and settlement
- calculate the 'tick value' of a contract, and explain its role in 'marking to market' and margining
- describe the roles of the Exchange and the Clearing House
- explain the principles of using futures contracts in trading, hedging and arbitraging
- list the advantages/disadvantages of exchange traded instruments to OTC alternatives
- explain the basis for a future contract, fair value and basis risk
- explain some of the trading methods, including 'spread' trading, 'cash and carry' arbitrage and 'stripping'
- explain the importance of volume and open interest statistics
- describe the characteristics of an FRA
- explain its evolution
- explain FRABBA terms and FRA terminology
- price an FRA from different sources
- calculate settlement amounts correctly
- list the different uses of an FRA

## Section 5. Repurchase Agreements (Repos)

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**Overall Objective:** To describe the characteristics of the repo market, its relationship with the bond market and the related cash flows, and the roles of the various participants.

**At the end of this section, candidates will be able to:**

- list the different types of repos available
- explain the terminology of the repo market
- list the different types of documentation involved
- describe the roles of the participants

## Section 6. Capital Markets and Derivatives

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**Overall Objective:** To describe the term Capital Markets and their derivatives, its origins and evolution, and how the different instruments involved in the Capital Markets are used in the market place.

**At the end of this section, candidates will be able to:**

- describe the reasons for the emergence of Interest Rate Swaps (IRSs)
- list the characteristics of an IRS
- explain its relationship to parallel instruments such as futures and FRAs, especially for hedging and accounting procedures
- describe the ways in which IRS can be used to hedge or take trading positions
- explain the use of zero coupon rates
- explain the pricing and hedging of swaps
- list the different types of IRS and hybrid swap structures
- explain the importance of credit risk and replacement cost
- explain BBAIRS and ISDA terms and documentation, and market practices such as netting
- explain how to use an IRS to change the risk profile of an asset
- describe an asset swap
- explain the creation of a synthetic FRN, and to list the benefits/drawbacks in comparison to a standard FRN
- list the differences between the debt, equity and loan capital markets
- describe the origins and evolution of these markets
- explain the difference between domestic, foreign and Euro-market issuance, and private placements
- explain the main types of debt instruments in terms of
  - issuers
  - investors
  - maturity
  - pricing conventions
  - equity warrants, convertibles, equity linked
  - senior, subordinated, guaranteed, collateralised, asset backed, mortgage backed and
  - settlement
- explain the role of the primary and secondary markets
- explain the risk profile of fixed rate bonds with reference to concepts such as duration
- explain the impact of credit risk on spreads between bonds and pricing of new issues
- explain the importance of Government bond markets to the markets as a whole

- explain disintermediation and securitisation in relation to capital adequacy
- describe how repurchase agreements and securities lending are used in a capital markets environment
- describe the impact of fees structures on issuing costs

## Section 7. Risk Management

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**Overall Objective:** To explain the importance of risk to market participants, and to describe some of the ways in which risk and return can be identified, measured and controlled. To explain the roles of Central Banks in the environment in which they operate

**At the end of this section, candidates will be able to:**

- list the different types of risk
- explain the concepts of limits
- list common accounting procedures in relation to revaluation and type of trade
- describe the role of Treasury within an Institution
- describe the day to day control of exposures by
  - management
  - middle office
  - internal audit
- explain the impact of the Capital Adequacy Directive and Basel Accords
- describe the risks inherent in the area of custody and safekeeping
- explain the need for segregating risk management functions
- explain the differences between the major risk management techniques
- explain the Value-at-Risk concept, and how it works
- explain the use of internal risk modules for capital adequacy purposes
- explain the role of the Central Banks
- describe the instruments and techniques used by these institutions in conducting monetary policy
- describe the structure and sources of official foreign exchange reserves, including mutual credit agreements between central banks
- explain the difference between sterilized and unsterilized currency intervention, and to explain the process of co-ordinated central bank intervention
- describe the regulatory environment
- explain the role of the ACI in the market, with reference to the ACI Committee for Professionalism.

## Section 8. Fundamental & Technical Analysis

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**Overall Objective:** To explain some of theories involved in foreign exchange, and to explain the role of fundamental forecasting and technical analysis in foreign exchange.

**At the end of this section, candidates will be able to:**

- describe basic exchange rate theory
- explain fundamental forecasting to include economic, financial and political influences on the market, with particular reference to the main economic indicators
- describe technical analysis and its history
- list the basic technical indicators and explain their terminology

## Examination Procedure

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The Diploma now comprises a single, electronic examination of 3 hours. The examination comprises 8 new sections each containing 6 true/false statements. The titles for each of these new sections will be as follows:

Advanced Options, Advanced Foreign Exchange & Money Markets, Advanced FRA's & Futures  
Advanced Repos, Advanced Capital Markets, Advanced Risk Management, Advanced  
Fundamental & Technical Analysis, Advanced Swaps

Each of the 6 true/false statements taken from the above 8 topic sections will carry 2 marks for a correct answer for a total of 96 marks.

### Topic Section:

1. Foreign Exchange	10 questions 10 marks
2. Money Markets	10 questions 10 marks
3. FX Derivatives	10 questions 10 marks
4. Short term Interest Rate Derivatives	10 questions 10 marks
5. Repos	8 questions 8 marks
6. Capital Markets & Derivatives	8 questions 8 marks
7. Risk Management	8 questions 8 marks
8. Fundamental & Technical Analysis	6 questions 6 marks
9. Complex Multiple Choice Questions	5 questions 15 marks
10. Foreign Exchange Calculations	5 questions 15 marks
11. Money Market Calculations	5 questions 15 marks
12. FX & Short Term Interest Rate Deriv. Calcs.	5 questions 15 marks
13. Repo Calculations	5 questions 15 marks
14. Capital Markets & Deriv. Calculations	5 questions 15 marks
15. Advanced Options	6 true/false 12 marks
16. Advanced FX & Money Markets	6 true/false 12 marks
17. Advanced FRA's & Futures	6 true/false 12 marks
18. Advanced Repos	6 true/false 12 marks
19. Advanced Capital Markets	6 true/false 12 marks
20. Advanced Risk Management	6 true/false 12 marks
21. Advanced Fund. & technical Analysis	6 true/false 12 marks
22. Advanced Swaps	6 true/false 12 marks

Total maximum possible score 256 marks

Regulations covering the use of calculators, the formula sheet and the use of dictionaries remain unchanged.

## Grades

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Pass 167 - 191 marks

Merit 192 - 217 marks

Distinction 218 marks or above

## Examination Fee

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Euro 350 + vat at the local rate.