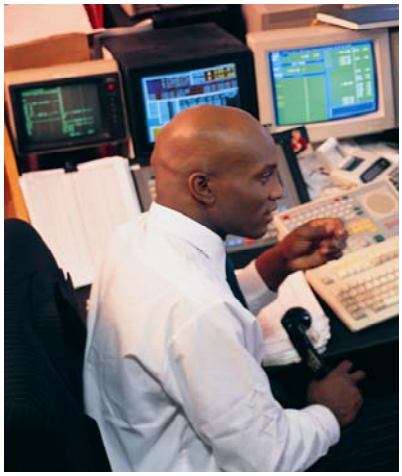

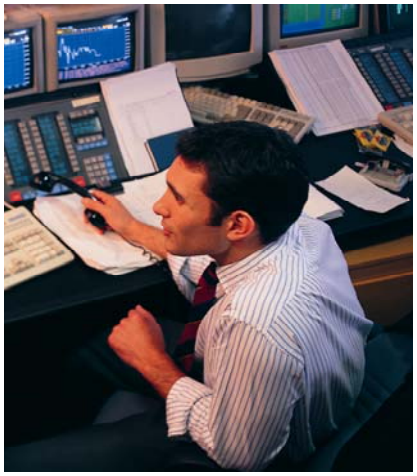

# ACI Dealing Certificate (008) Syllabus

*"Setting the benchmark in certifying the financial industry globally"*

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# SYLLABUS
## The ACI Dealing Certificate
**(Prometric Code: 310-008)**

**Examination delivered in English and German**

The ACI Dealing Certificate is a foundation programme that allows candidates to acquire a working knowledge of the structure and operation of the major foreign exchange and money markets, including the ability to apply the fundamental mathematics used in these markets, and their core products (cash, forwards and derivatives), and the basic skills required for competent participation, including the ability to apply the fundamental mathematics used in these markets. Candidates should also be able to apply The Model Code to their situation.

The course is designed for the following groups:

- new entrants and junior dealers (0-18 month's experience) in the dealing room
- middle office and operations personnel
- auditors and compliance officers

The ACI Dealing Certificate is a precursor to the ACI Diploma.

## 1. Basic Interest Rate Calculations

**Overall Objective:** To understand the principles of the time value of money. To be able to calculate short-term interest rates and yields, including forward-forward rates, and to use these interest rates and yields to calculate payments and evaluate alternative short-term funding and investment opportunities. Candidates should know what information is plotted in a yield curve, the terminology describing the overall shape of and basic movements in a curve, and the classic theories which seek to explain changes in the shape of a curve. They should also know how to plot a forward curve and understand the relationship between a yield curve and forward curves.

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

- calculate present value and future value using the arithmetic techniques of discounting and compounding for both a money market instrument terminated at maturity and one that is rolled over at maturity
- calculate simple interest rates using different day count and annual basis conventions
- identify the day count and annual basis conventions for the euro, sterling, Swiss franc, US dollar and Japanese yen
- fix same-day, next-day, spot and forward value dates, and maturities under the modified following business day convention and end/end rule
- fix the conventional frequency and timing of payments by cash money market instruments, including those with an original term to maturity of more than one year
- calculate broken dates and rates through linear (straight line) interpolation
- define EURIBOR, LIBOR and EONIA
- convert interest rates and yields between the money market basis and bond basis in currencies for which there is a difference

- convert interest rates and yields between annual and semi-annual compounding frequencies
- calculate a forward-forward rate from two mismatched cash rates
- calculate a cash rate from a series of forward-forward rates for consecutive periods
- calculate the value of a discount-paying money market instrument from its discount rate (straight discount) and convert a discount rate directly into a true yield
- plot a yield curve, describe its shape and the basic changes in its shape using market terminology, and outline how the Pure Expectations Theory, Liquidity Preference Theory and Market Segmentation Hypothesis explain the shape of the curve

## 2. Cash Money Markets

**Overall Objective:** To understand the function of the money market, the differences and similarities between the major types of cash money market instrument and how they satisfy the requirements of different types of borrower and lender. To know how each type of instrument is quoted, the quotation, value date, maturity and payment conventions that apply and how to perform standard calculations using quoted prices. Given the greater inherent complexity of repo, a good working knowledge is required of its nature and mechanics.

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

- define the money market
- describe the main features of the basic types of cash money market instrument --- i.e. interbank deposits, bank bills or bankers' acceptances, treasury or central bank bills, commercial paper, certificates of deposit and repos --- in terms of whether or not they are securitised, transferable or secured; in which form they pay return (i.e. discount, interest or yield); how they are quoted; their method of issuance; minimum and maximum terms; and the typical borrowers/issuers and lenders/investors that use each type
- use generally-accepted terminology to describe the cashflows of each type of instrument
- understand basic dealing terminology as explained in The Model Code
- distinguish between and define what is meant by domestic, foreign and euro- (offshore) money markets, and describe the principal advantages of euromarket money instruments
- describe the differences and similarities of classic repos and sell/buy-backs in terms of their legal, economic and operational characteristics
- define initial margin and margin maintenance
- list and outline the main types of custody arrangements in repo
- calculate the value of each type of instrument using quoted prices, including the secondary market value of transferable instruments
- calculate the present and future cashflows of a repo given the value of the collateral and an agreed initial margin
- define general collateral (GC) and specials
- describe what happens in a repo when income is paid on collateral during the term of the repo, in an event of default and in the event of a failure by one party to deliver collateral

## 3. Foreign Exchange

**Overall Objective:** To understand and be able to apply spot exchange rate quotations. To understand basic spot FX dealing terminology and the role of specialist types of intermediary. To recognise the principal risks in spot and forward FX transactions. To calculate and apply forward FX rates, and understand how forward rates are quoted. To understand the relationship between forward rates and interest rates. To be able to describe the mechanics of outright forwards and FX swaps, explain the use of outright forwards in taking currency risk and explain the use of FX swaps in rolling spot positions, hedging outright forwards, creating synthetic foreign currency assets and liabilities, and in covered interest arbitrage. To be able to recognise and use quotes for precious metals, and demonstrate a basic understanding of the structure and operation of the international market in precious metals.

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

- identify the base currency and the quoted currency in standard exchange rate notation
- select which currency should be the base currency in any currency pair
- recognise the ISO codes for the currencies of the countries affiliated to ACI - The Financial Markets Association
- distinguish between the “big figures” and the “points/pips”
- apply a bid/offer spot exchange rate as price-maker and price-taker to convert either a base or quoted currency amount
- select the best of several spot rates for the buyer or seller of an amount of base or quoted currency
- understand basic spot FX dealing terminology as explained in The Model Code
- calculate cross-rates from pairs of exchange rates where the common currency is the base currency in both rates, where the common currency is the base currency in only one rate and where the common currency is the base currency in neither rate
- calculate and explain the reciprocal rate of an exchange rate
- define the function of market-making and explain the incentives to make markets and the particular risks of market-making
- outline what a voice-broker does and distinguish voice-brokers from principals
- outline what an automatic trading system (ATS) or electronic broker does in spot FX
- calculate a forward FX rate from a spot FX rate and interest rates
- calculate an outright forward FX rate from a spot rate and the forward points, and vice versa
- explain the relationship between the outright forward rate, the forward points, the spot rate and interest rates, including the concept of interest rate parity, and the possibility and concept of covered interest arbitrage
- fix forward value dates for standard periods and list those periods
- describe the structure and mechanics of an FX outright, and outline how an outright forward can be hedged with a spot transaction and deposits
- describe the structure and mechanics of an FX swap, and outline how it can be used in place of deposits to hedge an FX outright and the advantages
- use generally-accepted terminology to specify an FX swap
- outline the applications of FX swaps in creating synthetic foreign currency asset and liabilities, and in covered interest arbitrage
- outline the application of tom/next and overnight FX swaps in rolling over spot positions and hedging value-tomorrow and value- today outright rates, and calculate a value-tomorrow rate from a spot rate and tom/next points, and a value-today rate from a spot rate, tom/next points and overnight points
- calculate broken-dated forward FX rates through linear interpolation
- calculate forward cross-rates
- list the commodities called precious metals (gold, silver, platinum and palladium) and give their ISO codes

- describe the conventional method of quoting gold in the international market in US dollars per ounce
- apply a bid/offer spot price as price-maker and price-taker to calculate the value of a given weight of precious metals
- distinguish between precious metals trading for physical delivery and book entry
- distinguish between the spot, forward and derivative markets in precious metals
- outline the mechanics and role of the London gold price fixing
- explain the role of gold lending/borrowing and define the gold offered forward rate or lease rate

## 4. Forward-forwards, FRAs and Money Market Futures & Swaps

**Overall Objective:** To understand the mechanics of and how to use money market interest rate derivatives to hedge interest rate risk.

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

- describe the mechanics and explain the terminology of a forward-forward loan or deposit, and the interest rate risk created by such instruments
- explain how FRAs, money market futures and money market swaps are derivatives of forward-forward positions, and outline the advantages of derivatives
- describe the mechanics and terminology of FRAs, use quoted prices, select the correct contract, decide whether to buy and sell, identify the settlement rate and calculate the settlement amount
- explain how FRAs can be used to hedge interest rate risk
- describe the mechanics and terminology of money market futures, use quoted prices, select the correct contract, decide whether to buy and sell, identify the settlement rate and calculate variation margin payments
- explain how money market futures can be used to hedge interest rate risk
- give the contract specifications of the eurodollar, 3-month Euribor, short sterling, euro-Swiss franc and Japanese euroyen futures
- outline the principal differences between OTC instruments like FRAs and exchange-traded instruments like futures, and describe how a futures exchange and clearing house works
- describe the mechanics and terminology of money market interest rate swaps, including overnight indexed swaps (OIS), use quoted prices, select the correct contract, decide whether to buy and sell, identify the settlement rate and calculate settlement amounts
- explain how swaps can be used to hedge interest rate risk
- explain how money market futures can be used to hedge and price FRAs and money market swaps
- identify the overnight indexes (OI) for euro, sterling, Swiss francs and US dollars.

## 5. Options

**Overall Objective:** To understand the fundamentals of options. To recognise the principal classes and types, and understand the terminology, how they are quoted in the market, how their value changes with the price of the underlying asset and the other principal factors determining the premium, how the risk on an option is measured and how they are delta hedged. To recognise basic option strategies and understand their purpose.

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

- define an option, and compare and contrast options with other instruments
- define strike price, market price, the underlying, premium and expiry
- calculate the cash value of a premium quote
- describe how OTC and exchange-traded options are quoted, and when a premium is conventionally paid
- define call and put options
- explain the terminology for specifying a currency option
- describe the pay-out profiles of long and short positions in call and put options
- describe the exercise rights attached to European, American, Bermudan and Asian (average rate) styles of option
- define the intrinsic and time values of an option, and identify the main determinants of an option premium
- explain what is meant by in the money, out of the money or at the money
- define the delta, gamma, theta, rho and vega
- interpret a delta number
- outline what is meant by delta hedging
- outline how to construct long and short straddles and strangles, and explain their purpose
- outline how options can be used to synthesise a position in the underlying asset
- define an interest rate guarantee
- describe the function of cap and floor options, and how they are used to produce long and short collars

## 6. Principles of Risk

**Overall Objective**: To identify and distinguish between the principal types of risk in the markets, and to explain the main policies and procedures used to mitigate these risks. To understand the principles of position-keeping and valuation, using spot FX as an example.

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

- define and distinguish between credit, market, liquidity, operational, legal, settlement and basis risks, and identify these risks in basic money market instruments
- define and distinguish between transaction, translation and economic currency exposures
- define replacement cost
- explain the purpose of netting, and distinguish between bilateral and multilateral netting
- define settlement risk in FX and outline how this is managed through the Continuous Linked Settlement (CLS) system
- describe how the credit risk on spot and forward FX instruments changes over time
- explain which risks are hedged by collateral and which risks are introduced
- calculate the position and average rate of a series of spot FX transactions, and the profit or loss for a given revaluation rate
- explain the purpose of documentation
- explain the purpose of risk capital
- define nostro and vostro accounts, and outline their function
- explain what is meant by reconciliation
- distinguish between overnight and daylight limits
- distinguish between position, loss and risk (VaR-type) limits
- distinguish between hedging and arbitrage
- explain what is meant by long and short positions, how short positions are created and the risk on a short position

## 7. The Model Code

The Model Code is a valuable guide to best conduct and international best practice for all market participants. It is a practical study of over-the-counter market practices and conventions, distilled from the core best practices in the foreign exchange, money market and related derivative markets and is an integral part of the ACI suite of examinations.

**Overall Objective:** For candidates to have a thorough knowledge of the provisions of the Model Code and market practices, with particular emphasis on high standards of integrity, conduct and professionalism as well as the monitor and control mechanisms to be introduced to protect individuals and their institutions from undue risks and resultant losses.

Candidates will be expected to demonstrate an in depth knowledge and understanding of each of the following

- the purpose of the Model Code, and its application within the industry
- managements' responsibilities with regards to monitor and control policies that must, could and should be considered to be introduced into their own institutions to ensure full compliance with the letter and spirit of the Model Code
- the roles and responsibilities of the back office and their relationship to the front office
- undesirable practices and unprofessional conduct issues highlighted in the Model Code
- market terminology
- the general risk management principles for dealing business
- the procedures for dispute resolution, mediation and expert determination
- the market practices covering dealings in
    - ✓ Foreign exchange
    - ✓ Money market
    - ✓ Derivatives
    - ✓ Dealer-broker relationships
    - ✓ Dealer-customer relationships

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

- explain the purpose of The Model Code and its application within the industry
- describe the scope of The Model Code
- identify the role of the ACI's Committee for Professionalism as the author of The Model Code
- demonstrate a working knowledge of The Model Code by selecting the recommended responses to given issues as well as recognising what are appropriate standards of personal conduct in various circumstances, recommended dealing practice, the proper conduct and management of relationships with corporate/commercial clients and brokers, general risk management principles for dealing business and specific recommendations for the prudent organisation and management of such business
- explain standard market terminology
- explain the procedures for disputes, differences, mediation and compliance with The Model Code

## Examination Procedure

**Format:** The examination consists of a single paper of 2 hours duration divided into the following 9 topic baskets:

| | | |
|---|---|---|
| Basic Interest Rate Calculations | 5 questions | 5 marks |
| Cash Money Market | 5 questions | 5 marks |
| Cash Money Market Calculations | 5 questions | 5 marks |
| Foreign Exchange | 10 questions | 10 marks |
| Foreign Exchange Calculations | 5 questions | 5 marks |
| Forward-forward, FRAs and Money Market Futures & Swaps | 10 questions | 10 marks |
| Options | 5 questions | 5 marks |
| Principles of Risk | 5 questions | 5 marks |
| The Model Code | 30 questions | 30 marks |
| Total maximum score | | 80 marks |

The overall pass level is 60% (48 marks), assuming that the minimum score criteria for each of the topic baskets is met.

There is a minimum score criteria of 50% for the Model Code section and 40% for each of the other topic baskets.

## Grades

| | |
|---|---|
| Pass | 60% - 69.99% |
| Merit | 70% - 79.99% |
| Distinction | 80% and above |

## Examination Fee

Euro 250 + VAT at the local rate.