ACI Dealing Certificate New Version

Syllabus

Effective 21 April 2020

Exam Code 002-101

"Setting the benchmark in certifying the financial industry globally"

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SYLLABUS

ACI Dealing Certificate New Version

Examination delivered in English

Introduction

The ACI Dealing Certificate New Version Exam has been designed to cover the basic competence skills for the new entrants in dealing floors and all other financial markets roles related to foreign exchange, interest rates and commodities instruments. The Syllabus has been built to allow basic understanding of these instruments and the related financial markets segments, therefore providing the required competence level for existing or future financial markets professionals. The Syllabus and the respective exam have been redesigned with five topics covering the full range of foreign exchange, interest rates and commodities instruments, as well as their related markets with theoretical and quantitative questions, in addition to financial markets environment and applications with theoretical questions.

Building upon the competence skills provided by the ACI Dealing Certificate New Version, future financial market professionals will be expected to prove their knowledge and adherence to good market practices embedded in the FX Global Code and other relevant industry's Codes.

The course of study for the ACI Dealing Certificate New Version is designed for:

- Recent entrants and junior dealers (0-24 months experience) in the dealing room
- Middle office and operations personnel
- Compliance and risk officers

The ACI Dealing Certificate New Version is a precursor to the ACI Diploma exams.

There are five core subject areas in the ACI Dealing Certificate New Version:

- Financial Markets Environment
- Foreign Exchange
- Rates (Money and Interest Rate Markets)
- FICC (Fixed Income, Currency and Commodities) Derivatives
- Financial Markets Applications

Keywords: Calculate, Define, Describe, Distinguish, Explain, Identify, Outline, Understand

1. Financial Markets Environment

Overall Objectives: The overall objective of this topic is for candidates to understand the functions performed by financial markets in the economy and to explain its different segments, their scope and instruments. Candidates will be able to understand the basic concepts of efficient markets and the impact of regulation and codes in financial markets. Referring to the life cycle of a typical financial market transaction, candidates will be able to explain its main phases.

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

- Define financial markets and explain their main functions for the economy.
- Define foreign-exchange markets, money markets, capital markets and commodities markets.
- Describe how the main economic agents can impact financial markets.
- Outline how financial markets can be segmented under different criteria: term to maturity, product phase (primary and secondary), trade dates and settlement dates, location and regulation, and dealing structures.
- Distinguish between cash/spot and derivatives/forward markets.
- Distinguish between regulated markets and OTC markets, and understand how both functions.
- Identify the various types of regulated markets and their dealing structures.
- Outline and describe the roles of the main participants in financial markets.
- Define the function of market-making, explain the incentives to make markets and the main risks involved in market-making.
- Understand how available information impacts the efficiency of markets.
- Explain the key functions of every phase of a financial markets' transaction, from front office execution to settlement and reporting, distinguishing which steps are responsibility of the front, middle and back-office roles.
- Identify and outline the main regulations applicable to financial markets and their products: Markets in Financial Instruments Directive II (MiFID II, including its Regulation MiFIR), Market Abuse Regulation (MAR), Benchmarks Regulation (BMR), Dodd-Frank Wall Street Reform and Consumer Protection Act, European Market Infrastructure Regulation (EMIR), Basel I, Basel II and Basel III.
- Identify and outline the main codes applicable to financial markets and their products: FX Global Code, Global Precious Metals Code and United Kingdom Money Markets Code.

2. Foreign Exchange

Overall Objective: The overall objective of this topic is for candidates to understand and to be able to explain basic foreign exchange rate quotations, their terminology, mechanics and the principal risks associated with FX spot and forward instruments. At the end of this section, candidates will be able to define the relationship between forward rates and interest rates, explain the use of FX outright forwards for foreign currency risk management and the use of FX swaps in rolling spot positions, hedging FX outright forwards, and in creating synthetic foreign currency assets and liabilities. Candidates will be required to perform basic calculations for FX market instruments. The candidates will be able to describe NDFs and, explain their rationale. Candidates will be able to understand and identify quotations for precious metals, and also demonstrate a basic understanding of the structure and operation of precious metals' financial markets.

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

- Distinguish the preferred base currency and the quoted currency in standard exchange rate notation in a currency pair.
- Identify the ISO codes for the currencies of the G20 countries.
- Distinguish between the "big figures" and the "points/pips" in a currency pair.
- Identify a bid/offer spot exchange rate as price-maker and as price-taker to calculate either a base or quoted currency amount.
- Identify the best of several spot rates as the buyer or as the seller of an amount of base or quoted currency.
- Understand and define the basic dealing terminology and characteristics of FX spot, FX outright forward, FX swap and forward-forward FX swaps.
- Calculate cross-rates from a given pair of exchange rates with all the possible combinations between base and common currencies.
- Calculate and explain the reciprocal rate of an exchange rate.
- Outline the mechanics and roles of benchmark fixings for FX rates.
- Calculate a FX outright forward rate from a FX spot rate, interest rates and/or 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 as well as the concept and possibility of covered interest arbitrage.
- Calculate forward cross-rates.
- Define forward value dates for standard periods and list those periods.
- Describe the structure and mechanics of an FX outright forward and of a FX swap, outline how a FX outright forward can be hedged with a FX spot transaction and money market transactions and outline how a FX swap can be used in place of money market transactions to hedge an FX outright forward and in creating synthetic foreign currency asset and/or liabilities.
- Explain the structure and mechanics of FX forward-forward swaps.

- Understand the concepts of historic rate rollovers and of early or late settlement in FX transactions.
- 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 FX outright forward rates through linear interpolation.
- Understand the concepts of deliverable and non-deliverable currencies.
- Define a Non-Deliverable Forward (NDF), explain its rationale and describe the structure and the features of these instruments.
- Identify 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.
- Identify a bid/offer spot price as price-maker and as price-taker to calculate the value of a given weight of precious metals.
- Distinguish between the spot, forward and derivative markets in precious metals.
- Outline the mechanics and role of the precious metals' benchmark fixings.

3. Rates

Overall Objective: The overall objective of this topic is for candidates to understand the principles of the time value of money, the function of the interest rates markets, the characteristics of the main types of money market instruments and interest rate capital markets instruments, as well as how they satisfy the requirements of different types of borrowers and lenders. Candidates will need to be able to calculate short-term interest rates and to perform standard calculations using quoted prices. Candidates will understand the basic characteristics and applications of a forward curve and of a yield curve and will be required to calculate them. At the end of this topic candidates need to be able to understand and outline the main features of bonds, particularly how they can be structured, priced and used as a key element in repo markets. Given the greater inherent complexity of repo instruments, candidates are required to be able to explain and calculate repo instruments issues and problems.

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

- Define the money markets and interest rate capital markets.
- Describe the main features of the basic types of cash money market instrument in terms of whether or not they are transferable or secured; in which form they pay return (i.e. discount, interest or yield); how they are quoted; internationally recognised minimum and maximum terms; and the typical borrowers/issuers and lenders/investors that use each type.
- Outline generally accepted terminology to describe the cashflows of each type of instrument and understand basic dealing terminology.
- Calculate present value and/or future value using the arithmetic techniques of discounting and/or compounding for a money market instrument terminated at maturity and/or for one that is rolled over at maturity.
- Calculate simple interest rates using different day count and annual basis conventions, identify the international day count and annual basis conventions for the currencies of the G20 countries.
- Identify same-day, next-day, spot and forward value dates, and maturities under the following business day, modified following business day and preceding business day conventions.
- Identify the conventional frequency and timing of payments for 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 interest rate indices, their methodologies and outline the most internationally used benchmark indices in the rates' markets.
- Calculate interest rates and yields between the money market basis and bond basis in currencies for which there is a difference, and between annual and semi-annual compounding frequencies.
- Calculate the value of a discount-paying money market instrument from its discount rate (straight discount) and calculate a discount rate directly into a true yield.

- Describe the various shapes of a yield curve and basic changes in its shape using market terminology and outline how the shape of the curve can be explained by theories and hypothesis (market segmentation, liquidity preference and expectations).
- Describe the main characteristics of bond instruments as fixed-income securities and their roles in the function of interest money markets.
- Distinguish between and define what is meant by domestic, foreign and euro currency (offshore) money and bond markets and describe the principal advantages of euro money market instruments.
- Distinguish coupon bonds, zero coupon bonds, covered bonds, sukuk bonds, junk bonds, bond indentures, callable bonds, convertible bonds and floating rate bonds.
- Identify and outline the main characteristics of Islamic money market instruments (mudharabah and murabahah).
- Describe the differences and similarities of classic repos and sell/buy-backs in terms of their legal, economic and operational characteristics.
- Identify 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 haircuts and calculate the present and future cashflows of a repo given the value of the collateral and the usage of haircuts.
- Define general collateral (GC) and specials.
- Describe and outline the main features of securities financing transactions (SFTs) using lending and borrowing of bonds or commodities, using margin lending and their main characteristics.
- Identify the collateral types and their role in SFTs.
- Understand the main characteristics and objectives of short selling strategies.
- Describe what happens in a repo and other SFTs when income is paid on collateral during the term of the transaction, in an event of default and in the event of a failure by one party to deliver collateral.
- Describe the mechanics and explain the terminology of a forward-forward loan or deposit, and the interest rate risk created by these instruments.
- Calculate a forward-forward rate from two mismatched cash rates and a cash rate from a series of forward-forward rates for consecutive periods.

4. FICC Derivatives

Overall Objective: The overall objective of this topic is for candidates to understand how derivatives work and their function in financial markets. Candidates will be able to describe the mechanics of currency derivatives, how to use them and the fundamentals of currency options. Candidates will be able to identify basic currency option products and understand their purpose. Candidates will be able to describe the mechanics of interest rate derivatives, how to use them and the fundamentals of interest rate options. Candidates will be able to identify basic interest rate option products and understand their purpose. The candidates need to be able to perform basic calculations referring to the derivatives products included in the Syllabus.

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

- Describe the main concepts and product definitions of derivatives markets.
- Explain the objectives, risks and advantages in the utilisation of derivatives in financial markets, from trading to risk management.
- Define currency options, explain their terminology and distinguish these options with other currency derivatives and explain how they can be used to hedge currency risk.
- Describe the functions and characteristics of calls and puts, and how they can be combined in the creation of risk reversal (cylinders), straddle and strangle option products.
- Define strike price, market price, the underlying, premium, exercise type, exercise rights and expiry in currency options.
- Calculate the cash value of a premium quote in OTC currency options, describe how OTC and exchange-traded currency options are quoted, and when a premium of an OTC currency option is conventionally paid.
- Describe the pay-out profiles of long and short positions in calls and puts.
- Explain how FRAs, Interest Rate Swaps, Basis Swaps, Money Market Swaps and Money Market Futures are derivatives of forward-forward positions.
- Explain how FRAs, Interest Rate Swaps, Money Market Swaps and Money Market Futures can be used to hedge interest rate risk.
- Describe the mechanics and terminologies of FRAs, Basis Swaps, Money Market Futures and Interest Rate Swaps (including Overnight Indexed Swaps).
- Outline the contract specifications of the main Money Market Futures (Euribor, Eurodollar, Short Sterling, Euroswiss, Euroyen).
- Define collateral procedures in Money Market Futures such as initial margin, margin call and margin maintenance.
- Outline the principal differences between OTC instruments like FRAs and the Exchange-Traded instruments like Money Market Futures.
- Describe how a futures exchange and clearing house works.
- Explain how Money Market Futures can be used to hedge and price FRAs and Interest Rate Swaps.

- Calculate the settlement amount of FRAs at maturity against their benchmark index.
- Identify and distinguish the main Overnight Indexed Swaps (OIS) used in interest rate markets (Eonia, Fed Funds, Saron and Sonia).
- Define interest rate options, explain their terminology, distinguish these options with other interest rate derivatives and explain how they can also be used to hedge interest rate risk.
- Explain the functions and characteristics of caps, floors and swaptions, and how caps and puts can be combined in the creation of collar option products.
- Define strike price, market price, the underlying, premium, exercise type and expiry in interest rate options.
- Calculate the cash value of a premium quote in OTC interest rate options, describe how OTC interest rate options are quoted, and when a premium of an OTC interest rate option is conventionally paid.
- Describe the pay-out profiles of long and short positions in caps and floors.
- Define the intrinsic and time values of options and identify the main determinants of an option premium.
- Define delta, gamma, theta, rho and vega in options.
- Understand a delta number and outline what is meant by delta hedging.
- Explain what is meant by In-The-Money, Out-Of-The-Money or At-The-Money in options.
- Explain the basic concepts of mark-to-market calculations for derivatives.

5. Financial Markets Applications

Overall Objective: The overall objective of this topic if for candidates to understand the importance that risk has in defining the financial institutions' business models and to understand the relevance of effective risk management framework as a key driver for sustainability of the business. Candidates will understand and be able to explain and identify major risk groups: market, credit, liquidity, operational, legal, regulatory and reputational risk; and to understand the significance of risk groups for different financial markets' businesses and organizational units. Candidates are expected to outline the methods and procedures needed to measure and manage these risk types. Candidates will be required to outline the framework for Asset and Liability Management as an integrated balance sheet and risk management concept and to understand the importance of the Basel Accords for risk management issues.

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

- Understand the main risk relevance characteristics of the Basel Accords.
- List and outline the main risk factors for: Market, Credit, Liquidity, Operational, Legal, Regulatory and Reputational risk.
- Understand and be able to explain the following aspects of Market Risk:
    - Types (Interest Rate, Equity, Currency, Commodity) and components (Position, Settlement and Counterparty);
    - How Market Risk arises in the Trading Book;
    - Key concepts of Value at Risk and its quantitative techniques;
    - The sensitivity tools for Market Risk: duration, basis point value and greeks;
    - Limit structures in the dealing room.
- Understand and be able to explain the following aspects of Credit Risk:
    - Categories of credit risk: lending, issuer, settlement, counterparty credit risk;
    - Managing credit risk: limits and safeguards, ratings, credit approval authorities and transaction approval process, aggregating exposure limits by customers, sectors and correlations;
    - Credit mitigation techniques: collateral; termination clauses, re-set clauses, cash settlement, netting agreements;
    - Documentation: covenants, ISDA / CSA.
- Understand and be able to explain the following aspects of Liquidity Risk:
    - Objectives and importance of a funding strategy;
    - Lessons learned from crises in liquidity risk management; off-balance sheet contingencies, complexity, collateral valuation, intra-day liquidity risks and cross-border liquidity, measuring and managing stress scenarios, early warning indicators of liquidity risk;
    - Liquid and non-liquid assets, the meaning and general concepts of Asset & Liability Management (ALM);

- Impact of main risk factors on the balance sheet (asset and liability sides);
- Explanation of ALM techniques: cash-flow management, duration management, liquidity gaps and mismatches;
- Concept of funds transfer pricing as a methodology to ensure that funding and liquidity costs & benefits are transparently allocated to respective businesses and products.

- Understand and be able to explain the following aspects of Operational Risk:
    - Sources of operational risk: systems, people, processes and external events.
- Understand and be able to explain the following aspects of Legal, Regulatory and Reputational Risk:
    - Sources of reputational risk and relationship to and from other risk groups;
    - Definition of Legal Risk;
    - Definition of Regulatory Risk;
    - Definition of Reputational Risk.

Examination Procedure

Format: The examination lasts 2 hours and consists of 70 multiple-choice questions. The **overall pass level** is 60% (42 correct answers), assuming that the minimum score criteria for each Topic Basket is met. There is a **minimum score criteria** of 50% for each Topic Basket. One mark is given for each correctly answered question.

Calculators: Some questions will require the use of a calculator. A basic one will be provided on the computer screen. You may also use your own hand-held calculator, provided it is neither text programmable nor capable of displaying graphics with a size more than 2 lines.

	Topic Basket (5)	**Types of Questions**	**Number of Questions**	**Total Number of Questions**	**Minimum of Correct Answers**	**Minimum Score Level**
1	Financial Markets Environment	Theory	10	10	5	50%
2	Foreign Exchange	Theory	12	18	9	50%
		Practical Exercises/ Calculations	6			
3	Rates	Theory	12	18	9	50%
		Practical Exercises/ Calculations	6			
4	FICC Derivatives	Theory	8	14	7	50%
		Practical Exercises/ Calculations	6			
5	Financial Markets Applications	Theory	10	10	5	50%
	Total		**70**	**70**		

Grades

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

Examination Fee

Euro 230.00 for Members of ACI, subject to applicable taxes.

Euro 280.00 for Non-Members of ACI, subject to applicable taxes.

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Related Reading List And Internet Links That May Help With The Studies And With The Exam Preparation

General

- **Economics of Money, Banking and Financial Markets**, 12th Edition. By Frederic S. Mishkin. December 2018, Paperback, 744 pages. ISBN10: 1292268859; ISBN13: 9781292268859 https://www.pearson.ch/

- **Money, Banking and Financial Markets**, 4th Edition. By Stephen Cecchetti and Kermit Schoenholtz. January 2014, Paperback, 752 pages. ISBN10: 007802174X; ISBN13: 978-0078021749 https://www.mheducation.com/home.html

- **Bond and Money Markets**, Financial Times Guides. By Glen Arnold. July 2015, Paperback, 488 pages. ISBN10: 0273791796; ISBN13: 9780273791799 https://www.pearson.ch/

- **Inside the Currency Market**: Mechanics, Valuation and Strategies, 1st Edition. By Brian Twomey and John R. Hill. November 2011, Paperback, 336 pages. ISBN10: 047095275X; ISBN13: 978-0470952757 https://www.wiley.com/en-us

Derivatives

- **All About Derivatives,** The Easy Way to get Started, 2nd Edition. By Michael Durbin. December 2010, Paperback, 288 pages. ISBN13: 9780071743518; ISBN10: 0071743510 https://www.mheducation.com/

- **Mastering Derivatives Markets** A Step-by-Step Guide to the Products, Applications and Risks. 4th Edition. By Francesca Taylor. December 2010, Paperback, 432 pages. ISBN13: 9780273735670; ISBN10: 0273735675 https://www.pearson.ch/

- **Options, Futures and Other Derivatives,** Global Edition. 9th Edition. By Prof. Dr. John C. Hull. September 2017, Paperback, 896 pages. ISBN13: 9781292212890 https://www.pearson.ch/

ACI Accredited Trainers*

- **An updated list** is available at: https://acifma.com/aci-trainers

*ACI does not offer advice and takes no responsibility nor liability for the performance of the services and training methodologies of ACI Accredited Trainers

Codes and Regulations

- **The FX Global Code** available at: www.globalfxc.org/docs/fx_global.pdf
- **The Global Precious Metals Code** available at: www.lbma.org.uk/downloads/PMC2018.pdf
- **The UK Money Markets Code** available at: https://www.bankofengland.co.uk/-/media/boe/files/markets/money-markets-committee/uk-money-markets-code
- **Markets in Financial Instruments Directive II (MiFID II)** available at: https://ec.europa.eu/info/law/markets-financial-instruments-mifid-ii-directive-2014-65-eu_en
- **Markets in Financial Instruments Regulation (MiFIR)** available at: https://ec.europa.eu/info/law/markets-financial-instruments-mifir-regulation-eu-no-600-2014_en
- **European Market Infrastructure Regulation (EMIR)** available at: https://ec.europa.eu/info/law/derivatives-emir-regulation-eu-no-648-2012_en
- **Market Abuse Regulation (MAR)** available at: https://ec.europa.eu/info/law/market-abuse-regulation-eu-no-596-2014_en
- **Benchmarks Regulation (BMR)** available at: https://ec.europa.eu/info/law/benchmarks-regulation-eu-2016-1011_en
- **Dodd-Frank Wall Street Reform and Consumer Protection Act** available at: https://www.cftc.gov/sites/default/files/idc/groups/public/@swaps/documents/file/hr4173_enrolledbill.pdf
- **Basel I Accord** available at: https://www.bis.org/publ/bcbs04a.htm
- **Basel II Accord** available at: https://www.bis.org/publ/bcbs107.htm
- **Basel III Accord** available at: https://www.bis.org/bcbs/basel3.htm