CEFA®

EFFAS® Certified
European Financial Analyst

EFFAS THE EUROPEAN FEDERATION OF FINANCIAL ANALYSTS SOCIETIES

E-CEFA

Certified European Financial Analyst

Learning Outcome Statements

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LOS Introduction

The European legislation[1] gives a clear structure and recommendation on how a qualification is set up.

- **Qualification** means a formal outcome of an assessment and validation process which is obtained when a competent authority determines that an individual has achieved learning outcomes to given standards. Qualifications typically take the form of documents such as certificates or diplomas.
- **Learning outcomes** means statements regarding **what a learner knows, understands and is able to do on completion of a learning process**, which are defined in terms of knowledge, skills and responsibility and autonomy. Those learning outcomes may be achieved through a variety of paths in formal, non-formal or informal settings, whether in national or international contexts. Information on learning outcomes should be **easily accessible and transparent**.
    - **Knowledge** means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that are related to a field of work or study. In the context of the EQF, knowledge is described as theoretical and/or factual.
    - **Skills** mean the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
    - **Competence** means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

Taking this into account the EFFAS review Panel defined the Learning Outcome Statements (LOS), specifying the knowledge, skill and competence the learner will acquire while completing the CEFA Programme.

[1] COUNCIL RECOMMENDATION of 22 May 2017 on the European Qualifications Framework for lifelong learning and repealing the recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning https://ec.europa.eu/ploteus/sites/eac-eqf/files/en.pdf

PART 1: ECONOMICS

The Economics module covers the following topics:

1. Macroeconomics
   a. National Income and Price
   b. Consumption
   c. Government Expenditure
   d. Equilibrium in the Money Market
   e. Equilibrium in Economy and Aggregate Demand
   f. Aggregate Supply and Determination of Price of Goods/Services
2. Macro Dynamics
   a. Inflation
   b. Economic Growth
   c. Business Cycles
3. International Economy and Foreign Exchange Markets
   a. Open Macroeconomics
   b. Foreign exchange rate
   c. Central bank and Monetary Policy

Upon completion of the topics the candidate gains the following competences:

1. Macroeconomics
   a. Be able to analyse investment decisions from a macro-economic perspective
   b. Be able to identify performing economies and their driving forces
   c. Be able to develop a top-down economic model
   d. Explain the implications on the macroeconomic equilibrium in the short and medium term
2. Macro Dynamics
   a. Be able to understand the impact various economic factors can have on economic prosperity
   b. Be able to understand the implications of changes in structural economic variables on economic growth
   c. Be able to generate rational expectations on inflation given a set of economic variables.
   d. Understand the implications of different levels of inflation on monetary policy
   e. Understand how business cycles and economic growth can be shaped by changes
3. International Economy and Foreign Exchange Markets
   a. Understand how countries can gain from international trade and compare them
   b. Understand how changes in fiscal policy can have an impact on the aggregate output of an economy
   c. Understand the transmission mechanism of monetary policy to the real economy
   d. Be able to manage risk associated with foreign currency
   e. Use interest rate differentials to determine arbitrage opportunities
   f. Determine the correct value of exchange rates given specific interest rate conditions.

PART 2: CORPORATE FINANCE

The Corporate Finance module covers the following topics:

1. Fundamentals of corporate finance
2. Long term financial decisions
3. Short term financial decisions
4. Capital Structure and Dividend Policy
5. Mergers and Acquisitions
6. International Corporate Finance

Upon completion of the topics the candidate gains the following competences.

1. Fundamentals of corporate finance
    a. Explain to investors the quality of the corporate governance
    b. Be able to present a judgement on company targets
    c. Present and discuss a business plan to internal monitoring body or to investors
    d. Be responsible in front of management to provide a view on value creation for the company and for the equity holders
    e. Present to the management the sensitivity of the value to the main business parameters
    f. Be able to advise and select the relevant investment and cost of capital for the corporation
2. Long term financial decisions
    a. Prepare the follow-up information required by company management
    b. Select for the management the best project according to the different criteria
    c. Allow management to understand the process and true cost of stopping a project
3. Short term financial decisions
    a. Define the short-term resources management at optimal cost
    b. Define the best cash management strategy
    c. Monitor the Treasury choices with the ability to clarify the available funding capacity
4. Capital Structure and Dividend Policy
    a. Define the range of gearing with the aim to conciliate the views of creditors and shareholders
    b. Interact with shareholders to explain the dividend policy in relationship with value creation
5. Mergers and Acquisitions
    a. Take responsibility of the definition of a price range with a discussion of the rationale
    b. Inform management of the different available options including their ranking for the case
    c. Propose different options in order to help management to select the appropriate route in an acquisition
    d. Take responsibility to act as an owner of the business and to propose a strategic review of the lines of business within an arbitrage process
6. International Corporate Finance
    a. Propose a relevant policy of foreign investment within the limit of the risk appetite of the company
    b. Take responsibility to build a framework with risk and protection assessment in each project

PART 3: FINANCIAL ACCOUNTING AND FINANCIAL STATEMENT ANALYSIS

The Financial Accounting and Financial Statement Analysis module covers the following topics:

1. Financial Reporting Environment
2. Framework for the Preparation and Presentation of Financial Statements
3. The Statement of Cash Flow
4. Income and expense recognition
5. Assets, Liabilities and Shareholders' Equity
6. Business Combinations
7. Foreign Currency Transactions
8. Financial reporting and Financial Statement Analysis
9. Analytical Tools for Gaining Financial Statements Insights
10. Analytical Tools for Assessing Profitability and Risk

Upon completion of the topics the candidate gains the following competences.

1. Financial Reporting Environment
    a. be able to represent the "spokesman" of a company or a research project,
    b. be responsible for clarifying to international investors the company´s SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, despite differences in accounting.
2. Framework for the Preparation and Presentation of Financial Statements
    a. Be able to explain the current position of the entity in an understandable way
    b. Be able to explain to shareholders the actual situation of the company, by "Translating" the concepts of the main captions shown in the financial statements
3. The Statement of Cash Flow
    a. be responsible for a professional demonstration of value of the entity/project, when presented to investors or other interested parties
    b. be able to differentiate cash and non-cash revenues and expenses to all stakeholders so as to show them the actual situation of the company, eventually using this information for negotiations with employees
4. Income and expense recognition
    a. be able to show a client the circumstances which may affect the sale contract
    b. be able to prepare good statistic data so as to evaluate the business risk in a joint-contract
    c. be responsible for assessing the employees on the coverage of their agreed guaranties
    d. be responsible for informing third parties of the company´s situation to comply with its obligations, participating in re-financing negotiations if needed
5. Assets, Liabilities and Shareholders' Equity
    a. be responsible for informing the top managers on the adequate use of assets and their contribution to the return (ROA) of them in the company´s earnings
    b. be responsible to maintain a reasonable risk exposure in the business
    c. be able to explain the current position of the entity in a way that it´s understandable

   d. be responsible for informing third parties of the company´s situation to comply with its obligations, participating in re-financing negotiations if needed.
   e. be able to Interact with shareholders to explain the key issues related with the performance of the business ("investor relations")
6. Business Combinations
   a. be responsible for providing proper information to investors on the group's corporate decisions, and how these might affect future earnings growth (and potential synergies)
   b. be responsible for informing shareholders on how the total group's entities perform, including minority interests,
7. Foreign Currency Transactions
   a. explain the evolution of the different currencies and to take the steps (to inform) on how to cover (hedge) the currency risk
   b. be responsible for a presentation of consolidated statements of all subsidiaries abroad, including a fair valuation of the impact of the foreign currencies' volatility.
   c. be able to manage such extreme situations to cover the company's risks in those subsidiaries operating in a hyperinflationary economy.
8. Financial reporting and Financial Statement Analysis
   a. be able to inform investors on the current position within the expected life cycle of the company/project, detailing its prospects looking forward
   b. be responsible for interpreting the international accounting standards to give a fair (or not) view of the company's financial position and its results
   c. be able to provide investors an easy way to compare with other investment alternatives, regardless of the sector and size of the company, by explaining the impact they might have on their future returns from potential shareholders, so as to take an investment decision at any particular time
   d. be responsible for a clear segregation of the different (segment) activities (financial position and returns) in which the company is involved
   e. be responsible for a fair presentation of the events that have occurred during an interim accounting period, with sufficient disclosure of the impact of such events in the financial statements
9. Analytical Tools for Gaining Financial Statements Insights
   a. be able to prepare the information required by the regulator (SEC or local equivalent) to provide investors with common-language ratios
   b. be responsible for preparing comparable data with prior accounting periods
10. Analytical Tools for Assessing Profitability and Risk
   a. define the return of the company/project, distinct from that of the shareholders, by evaluating and managing the options to alter financial leverage, to improve shareholders' returns
   b. be responsible for communicating with third parties' the financial position of the company and its ability to afford its future commitments
   c. be responsible to evaluate the performance of costs/revenues (budget) within the company's targets.

d. be able to prepare medium/long term targets related with the key captions of its financial statements to present to interested parties (investors, employees, financial institutions and other).

PART 4: EQUITY VALUATION AND ANALYSIS

The Equity Valuation and Analysis module covers the following topics:

1. Equity Markets and Structures
2. Understanding the Industry Life Cycle
3. Analyzing the Industry Sector and its Constituent Companies
4. Understand the Company
5. Valuation Model of Common Stock

Upon completion of the topics the candidate gains the following competences.

1. Equity Markets and Structures
    a. Advise investors on the different type of securities related to Equity that are available on the market and their risk/return profile,
    b. Explain the difference between direct investment into shares and indirect investment into Equity mutual funds in terms of risk/return profile.
    c. Advise investors on the role and the use of market indices.
2. Understanding the Industry Life Cycle
    a. Be able to build an investment strategy based on the industry life cycle of companies.
3. Analyzing the Industry Sector and its Constituent Companies
    a. Be able to build a benchmark of companies in the same industry sector,
    b. Identify the KPIs that drive the industry sector's performance,
    c. Be able to analyze companies's business strategies within an industry,
    d. Use the appropriate model to forecast the company's financial statements
    e. Determine the comparative values of the companies, within the industry, in order to advice investors on the investment opportunities.
4. Understanding the Company
    a. Explain what the drivers of the company's financial performance have been in the past.
    b. Explain the company's policies regarding short-term and long-term investments, and their impacts on global profitability.
    c. Compute the fair value of the company using cash flow projections.
5. Valuation Model of Common Stock
    a. Master the different stock valuation models: DDM, FCF, EVA, MVA, CFROI, Abnormal Earnings Discount Model, peer comparison models
    b. Be able to present a critical view of the different models commonly used in equity valuation,
    c. Be able to propose a justified target price to investors.

PART 5: DERIVATIVE VALUATION AND ANALYSIS

The Derivative Valuation and Analysis module covers the following topics:

1. Introduction to "derivatives" financial instruments
2. Financial markets and instruments
3. Forwards and futures
4. Options
5. Swaps
6. Credit derivatives

Upon completion of the topics the candidate gains the following competences.

1. Introduction to "derivatives" financial instruments
   a. Understand the impact of financial risk in general, interest rate risk and FX risk specifically
   b. Be able to choose the right interest derivative for each risk position
   c. Be able to choose the right currency derivative for each risk position
2. Financial markets and instruments
   a. Understand the main characteristics of money markets
   b. Evaluate the current economic situation of the specific market
   c. React according to the current economic situation
3. Forwards and futures
   a. Be able to calculate spot and forward interest rates and realise the difference between them on the market
   b. Understand the market making of futures
   c. Understand market dynamics of different kinds of futures contracts and futures markets
   d. Understand and assess the market mechanics of futures pricing
   e. Ability to assess the use of CAPM, hedging pressure theory and Cost of Carry models in future pricing
4. Options
   a. Use of the appropriate type of option in given a risk situation
   b. Use the different determinants of option pricing and create a valuation model
   c. Realise the current actual theory which applies to the market and reacts to the circumstances accordingly
   d. Be able to derive value of call and put options
   e. Understand general arbitrage relationships and option pricing
   f. Calculate and assess options according to binomial option pricing model, understand the practical use of binomial option pricing model
   g. Use delta and gamma in practice and in option trading
   h. Practical use of exotic options in hedging and positioning
   i. Be able to price exotic options with numerical methods
   j. Calculate volatility, understand the concept of volatility smile
   k. Understand option strategies and be able to choose the right strategy
   l. Know asset backed securities, understand cash-flow characteristics and value drivers
5. Swaps
   a. Understand the characteristics of different swap instruments
   b. Use the right swap instrument in a given situation

c. Create synthetic fixed or floating rate liabilities
d. Use hedging strategies for foreign currency rate exposures
e. Be able to use asset-based swaps
f. Lead the evaluation process of swap strategies
g. Use swap pricing in practice
h. Practical use of other swaps (equity swaps, commodity swaps, volatility swaps, credit default swaps) and their application

6. Credit derivatives
    a. Understand credit derivatives through examples of CDS and other products from Bloomberg
    b. Understand practical usability of CLN
    c. Understand the role of credit derivatives and be able to use them
    d. Be able to tailor credit investments and hedge them
    e. Manage and understand the role and responsibilities of the different market participants
    f. Be able to use and apply the concepts of the related institutional framework
    g. Understand the value drivers of CDS

PART 6: FIXED INCOME VALUATION AND ANALYSIS

The Fixed Income Valuation and Analysis module covers the following topics:

1. Introduction - Time value of money
2. Financial markets and instruments
3. Bond Yield Measures
4. Yield curves
5. Bond yield curves
6. Bond Price Analysis
7. Risk measures
8. Credit risk
9. Optionality in bonds
10. Fixed income portfolio Management Strategies

Upon completion of the topics the candidate gains the following competences.

1. Introduction - Time value of money
   a. be able for choosing the given opportunity and the right investment opportunity
   b. be able to react to different situations where annuities and other products are involved
   c. be responsible to evaluate basic investments
2. Financial markets and instruments
   a. be able to react according to the current economic situation
   b. be responsible for a professional demonstration of the products on the market
   c. be able to realise the opportunities hidden in the government market and combine the portfolio with zero coupon curves
   d. be responsible for realising the differences between corporate and government fixed income types of products
   e. be able to react successfully to blend the portfolio with both products
   f. be able to manage the portfolio of bonds compared to benchmark indices and to re-weight the bond portfolio compared to the benchmark
3. Bond Yield Measures
   a. be able to calculate different discount factors and realise the difference between them on the market
   b. be responsible for striving for the highest YTM while bearing in mind to receive a proper ex-post yield
   c. be responsible to calculate the forward rates
4. Yield curves
   a. be able to utilise the market curve for pricing purposes
   b. be responsible for replicating the market curve with external data to create a decent model to pricing
   c. be able to realise the current actual theory which applies to the market and based on this reacts to the circumstances

   d. be responsible to recognise the actual yield environment and take the responsibility to reflect

5. Bond yield curves
   a. be responsible for calculating the coupon for bonds which are issued at face value
   b. be able to lead the evaluation process of the portfolio with the actual market curves
   c. be able to calculate the riskiness of bonds by computing the CDS spreads
   d. be able to valuate portfolio with a maturity longer than the reference curve (swap curves)
6. Bond Price Analysis
   a. be responsible to calculate the fair market value of bonds
   b. be able to compute the differences between spot and credit curves and based on this ability to realise the possible highest return
   c. be able to price bonds with coupons
   d. manage to set the fair market values of floating rate notes
7. Risk measures
   a. be responsible to calculate the riskiness of a bond portfolio
   b. be able to define the riskiness of portfolio and take the necessary steps to mitigate risks
   c. be able to make the risk calculation process even more granular to compute the risk even more precisely
   d. be responsible to mitigate the risk of the portfolio by engaging in the proper hedging transaction (FRA or IRS)
8. Credit Risk
   a. be able to evaluate the credit riskiness of an issuer on the basis of industry considerations
   b. be able to evaluate the credit riskiness of an issuer on the basis of ratios
   c. be able to consider investment decision on the basis of credit ratings
   d. be able to take default risk into consideration when making investment decisions
9. Optionality in bonds
   a. be responsible to realise the embedded optionalities in bonds and react to the situation properly by pricing the bond correctly
   b. be able to calculate the prices of the bond and riskiness of the option embedded
   c. be able to calculate the riskiness of the embedded option on the basis of their spreads
   d. be able to notice the value of collateral in the bond prices and assess its riskiness
10. Fixed income portfolio Management Strategies
   a. be able to use of the optimised management strategy in the current economic situation
   b. be responsible for defining the suggested strategy in the current situation
   c. be able to use the immunisation strategy properly and to set the duration of the portfolio to the desired level.
   d. be able to realise the situation where passive portfolio management overcomes the active

PART 7: PORTFOLIO MANAGEMENT

The Portfolio Management module covers the following topics:

1. Modern Portfolio Theory
2. Investment Policy
3. Asset Allocation
4. Asset Liability-Analysis and Management
5. Practical Portfolio Management
6. Performance Measure
7. Management of Investment Institutions
8. Behavioural Finance
9. ESG and Portfolio Management

Upon completion of the topics the candidate gains the following competences.

1. Modern Portfolio Theory
   a. Explain the risk-return tradeoff in a diversified portfolio context,
   b. Be able to measure the components of the risk on a singular investment or an entire portfolio,
   c. Master the commonly used asset pricing models in their conceptual frameworks.
2. Investment Policy
   a. Be able to determine and drive investment objectives for individual investors
   b. Adapt portfolio structures to investment objectives,
   c. Measure how portfolio structures match with investor's investment objectives
3. Asset Allocation
   a. Implement an asset allocation process taking into account the financial market's environment and expectations,
   b. Master the different asset allocation methods
4. Asset Liability-Analysis Management (ALM)
   a. Master the statistical tools used in the measure and valuation of assets and liabilities of pension funds,
   b. Explain the basics of pension fund risk and return measures.
5. Practical Portfolio Management
   a. Explain what characterizes an active portfolio management and the different technics that can be used to implement it.
   b. Explain what characterizes a passive portfolio management and the different tools used to implement it.
   c. Be able to present a critical analysis of both strategies and propose the one the more adapted to investors' risk characteristics
   d. Master the different portfolio hedging methods and their impact on the portfolio performance,

   e. Be able to advice investors on alternative investments such as property and unlisted securities (characteristics, investment risk, reporting),
   f. Be able to manage a diversified portfolio in a global, e.g., international, investment context.
6. Performance Measurement
   a. Be able to present a broad analysis of the performance of diversified portfolios to investors, using risk-return measurement tools and risk-adjusted measurement tools,
   b. Analyze the performance of the portfolio using the appropriate benchmark,
   c. Analyze the performance attribution considering the portfolio manager strategy,
7. Management of Investment Institutions
   a. Be able to choose investment funds assessing the managers quality.
8. Behavioral finance
   a. Explain the impact of behavioral finance theory on the analysis of financial markets'
   b. Explain the financial markets anomalies and their implication on portfolio management strategies
9. ESG and portfolio management
   a. Be able to integrate ESG in any step of portfolio management.

PART 8. EUROPEAN REGULATION

The European Regulation module covers the following topics:

1. European Legislation
2. The Single Market for financial services
3. Regulation of Capital Markets
4. European Regulatory Bodies

Upon completion of the topics the candidate will have the following competences.

1. European Legislation:
    a. Be able to differentiate the different EU bodies (Parliament, Council and Commission).
    b. Know in general the regulations applicable in the EU (Directives, Regulations, Decisions).
    c. Be able to understand and distinguish the different functions of regulation in financial matters and, especially, in the European sphere
2. The Single Market for financial services:
    a. Know how to analyse the current situation of the single market and its goals, especially financial services, through legislative harmonization carried out in the EU.
    b. Know how to react to possible legislators within the EU.
3. Regulation of Capital Markets:
    a. Be able to apply at work the main legislative developments introduced by the current European Directives on investment.
    b. Know how to correctly employ the use of investment services and activities, distinguishing between main and auxiliary investment services.
    c. To be able to include each client in the corresponding category (retail or professional).
    d. Be able to properly market investment products, depending on the categories established by European regulations (Mifid and non-Mifid).
    e. Know how to correctly provide an advisory or simple commercialization service for an investment product, in order to avoid the risks and damages of bad practice.
    f. Be able to comply with the information duties required by European regulations.
    g. Inform about the different types of protection that an investor has at his disposal.
    h. Know how to recognize the use of privileged and / or relevant information, in order to comply with the legally established duties.
    i. To be able to comply with the prohibition of manipulating quotes to avoid such practice.
    j. Detect possible cases of money laundering and be able to correctly comply with the legal obligations imposed in this matter.
    k. Properly manage the personal data of a client in the workplace.
    l. Know the rights of the interested party in the processing of their personal data in order to apply the relevant legal protection to them.
4. European Regulatory Bodies:
    a. Be able to understand the new supervisory and regulatory structure in the European capital and financial services market, to reduce the risks of regulatory non-compliance.
    b. Know the new European supervisory bodies (ESRB, EBA, EIOPA, ESMA), their functions and their objectives.
    c. Understand the operation of the new banking and capital union within the European Union.

PART 9: ETHICS

The Ethics module covers the following topics:

1. Ethical Conduct
   a. Ethical behaviour and financial markets
   b. Client first
   c. Conflicts of interest
   d. Market Abuse
2. Self-Regulation and Ethical Conduct
   a. IOSCO
   b. Banking Supervision
   c. Corporate governance & Compliance
3. Code of Ethics for Financial Analysts

Upon completion of the topics the candidate gains the following competences:

1. Ethical Conduct
   a. Be apple to apply ethical behaviour to their job
   b. Be able to act in accordance with the principle of acting in the best interest of clients
   c. Avoid market abuse
2. Self-Regulation and Ethical Conduct
   a. Be able to know the main regulation institutions
   b. Be able to apply regulation conducted by the main institutions
3. Code of Ethics for Financial Analysts
   a. Be able to apply ethical principles to work practice

PART 10: ESG – ENVIRONMENTAL SOCIAL AND GOVERNANCE

The ESG module covers the following topics:

1. ESG - an introduction
2. Recent Developments of ESG integration
3. The Investment Process Chain
4. Responsible investing across asset classes
5. ESG Integration in Valuation

Upon completion of the topics the candidate gains the following competences:

1. ESG - an introduction
    a. Learn the state of the art on ESG Investment
    b. Distinguish between the different definitions and developments in ESG
    c. Be able to list different ESG strategies
    d. Learn the correlation between ESG and financial performance
    e. Learn the barriers of ESG integration

2. Recent Developments of ESG integration
    a. Learn about the major market drivers of ESG
    b. Get an overview of the regulatory framework, investor demands and initiatives
    c. Learn the ESG Reporting Frameworks for companies and investors

3. Investment Process Chain
    a. Learn the general steps of the investment process chain
    b. Get an overview of macro research and asset allocation, company analysis, portfolio construction, trading, portfolio and risk analytics, compliance and reporting as well as engagement and voting

4. Responsible investing across asset classes
    a. Learn about differences in ESG integration across different asset classes
    b. Learn about ESG-linked investment objectives and their influence on the investment strategy and strategic asset allocation
    c. Understand how some empirical facts describe the relative importance and prevalence of ESG integration across asset classes
    d. Get an overview of the challenges that can be found regarding particular investment approaches and which asset classes are best suited to manage these.
    e. Learn about asset categories that have been designed to meet the needs of investors and achieve real-world impacts

5. ESG Integration in Valuation
    a. Get an overview of the impact of ESG factors in the financial accounts and valuation model
    b. The student will see examples of ESG factors affecting future financial estimates of Equities, Fixed Income and infrastructure assets