

# **University of Greenwich**

## **Business School**

Postgraduate Programmes 2010-11



**FINA0025**

**FINANCIAL MANAGEMENT**

**Course Leader: Dr. Cesario MATEUS**

## **Introduction to Financial Management**

I would like to extend a warm welcome to all Financial Management students. I hope you will learn a lot from undertaking this subject and it will mark the beginning of your lifelong interest in the world of finance. This subject provides an introduction to the theory and practice of finance. Greater details of subject aims, objectives and topics to be covered are provided in the next few pages.

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## Subject Outline

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### Subject Aims

The main objective of this subject is to provide an introduction to the theory and practice of finance. The finance function is mainly concerned with the investment and financing decisions of the firm. In the first half of the subject, different aspects of the investment decision are examined. These include the concepts of risk and expected return and the theory of pricing risky assets. The second half of the subject begins with an introduction to derivative contracts such as forwards, futures and options. It then examines financial decisions of the firm including the theory of capital structure and dividend policy.

### Learning Outcomes

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#### Subject Objectives

On successful completion of this subject students should be able to:

- Solve basic problems in financial mathematics.
- Discuss the basic theories underlying the pricing of risky assets;
- Comprehend the concepts of portfolio formation;
- Explain the fundamentals of capital budgeting, including the use of alternative criteria, allowing for inflation and the treatment of risk;
- Analyse the issues facing managers in decisions of capital structure and dividend policy;
- Use the features of financial derivatives to achieve particular financial outcomes.

#### Generic Skills

In this subject you will have the opportunity to develop important generic skills. These include:

At a low activity level: Teamwork Skills; Skills Using Computer Software.

At a moderate activity level: Oral and Written Communication Skills; Collaborative Learning Skills; Statistical Reasoning Skills; Skills in the Application of Theory to Practice; Skills in the Synthesis and Evaluation of Data and Other Information; Skills in Accessing Data and Other Information from a Range of Sources.

At a high activity level: Problem Solving Skills; Interpretation and Analysis Skills; Critical Thinking Skills.

## Lectures and Tutorials

Please note that you are expected to attend all lectures and tutorials if you want to successfully pass this intensively taught subject.

## Lecture Schedule

This section provides a timetable of lectures for the entire semester.

Lecture	Date	Topic(s)
1	Sept, 29	Introduction to Business Finance Introduction to Financial Mathematics
2	Oct, 6	Valuation of Debt Securities
3	Oct, 13	Valuation of Equity Securities
4	Oct, 20	Risk and Return
5	Oct, 27	Modern Portfolio Theory
6	Nov, 3	Capital Asset Pricing Model Capital Market Efficiency
7	Nov, 10	Capital Budgeting
8	Nov, 17	Debt, Dividends and Taxes
9	Nov, 24	Introduction to Derivative Securities I
10	Dec, 1	Introduction to Derivative Securities II
11	Dec, 8	Revisions
12	Dec, 15	Revisions

## **PART A – INTRODUCTION**

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### **TOPIC 1: INTRODUCTION TO BUSINESS FINANCE & FINANCIAL MATHEMATICS**

#### **Lecture 1**

##### **Introduction to Business Finance**

- 1.1 Overview of the finance discipline
- 1.2 Compare simple interest to compounded interest
- 1.3 Compute the future value of a single cash flow
- 1.4 Compute the present value of a single cash flow

##### **Introduction to Financial Mathematics**

- 2.1 Compute an unknown interest rate and time period
- 2.2 Define and compute effective interest rates
- 2.3 Compute the present value perpetuities
- 2.4 Compute the present and future values of ordinary annuities
- 2.5 Compute the present and future values of annuities due
- 2.6 Applications using financial mathematics

## **PART B – INVESTMENTS**

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### **TOPIC 2: VALUATION OF DEBT AND EQUITY SECURITIES**

#### **Lecture 2**

##### **Valuation of Debt Securities**

- 3.1 Examine the characteristics of debt securities
- 3.2 Outline the basic valuation principle
- 3.3 Examine the pricing of discount debt securities
- 3.4 Examine the pricing of coupon paying debt securities
- 3.5 Relate the coupon rate to the yield to maturity
- 3.6 Analyse the sensitivity of prices to changes in interest rates

#### **Lecture 3**

##### **Valuation of Equity Securities**

- 4.1 Do earnings and dividends matter?
- 4.2 Examine the characteristics and pricing of ordinary shares
- 4.3 Analyze the relationship between earnings, dividends, and prices
- 4.4 Examine the concept of growth opportunities

### **TOPIC 3: RISK AND RETURN**

#### **Lecture 4**

##### **Risk and Return**

- 5.1 Measure returns earned on securities
- 5.2 Examine realized returns and their variability over time
- 5.3 Describe the probability distribution approach
- 5.4 Explain the concept of standard deviation as a measure of risk
- 5.5 Interpret risk and return measures
- 5.6 Illustrate how investor risk preferences can be represented

### **TOPIC 4: MODERN PORTFOLIO THEORY**

#### **Lecture 5**

##### **Modern Portfolio Theory**

- 6.1 Explain the concept of risk diversification
- 6.2 Explain the concepts of covariance and correlation of returns
- 6.3 Compute and interpret the expected return and standard deviation of a two asset portfolio

- 6.4 Examine the effects on risk and expected return of short selling and portfolio leveraging
- 6.5 Examine the risk and expected return of two asset portfolios for different correlation levels
- 6.6 Examine the risk and return of portfolios with many securities
- 6.7 Analyze the limitations to risk diversification benefits
- 6.8 Examine the risk-return tradeoff with a risky portfolio and risk free asset
- 6.9 Examine the separation theorem and its implications
- 6.10 Define the market portfolio
- 6.11 Develop the capital market line and its implications

## **TOPIC 5: CAPITAL ASSET PRICING MODEL (CAPM) & FAMA-FRENCH THREE FACTOR MODEL**

### **Lecture 6**

#### **Capital Asset Pricing Model**

- 7.1 Explain the relationship between systematic risk and expected return using the capital asset pricing model
- 7.2 Use the security market line relationship to value securities
- 7.3 Examine the issues related to estimating beta
- 7.4 Summarise the uses of beta
- 7.5 Examine the relationship between prices and expected returns
- 7.6 Apply the CAPM to value ordinary shares

#### **CAPM Continued and the Fama-French Three-Factor Model**

- 8.1 Examine the CAPM's testability
- 8.2 Fama and French three factor model

#### **Capital Market Efficiency**

- 9.1 Examine the concept of capital market efficiency
- 9.2 Examine the types of information related to market efficiency
- 9.3 Examine the role of market analysis in an efficient market
- 9.4 Outline some tests of market efficiency and the evidence
- 9.5 Examine the implications of market efficiency

## **PART C – CORPORATE FINANCE**

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### **TOPIC 6: PROJECT EVALUATION**

#### **Lecture 7**

#### **Capital Budgeting/Project Evaluation**

- 10.1. Introduction
  - 10.1.1 Project evaluation defined
  - 10.1.2 The capital expenditure process
- 10.2 Net Present Value (NPV)
  - 10.2.1 NPV: The mechanics
  - 10.2.2 NPV: A simple example
  - 10.2.3 NPV: Interpretation
  - 10.2.4 NPV: Implementation (the basics)
- 11.1 Internal rate of return (IRR)
  - 11.1.1 IRR: The basics
  - 11.1.2 What's wrong with IRR?
    - (a) Multiple and indeterminate IRRs
    - (b) Mutually exclusive projects
  - 11.1.3 Incremental IRR
- 11.2 Accounting rate of return
- 11.3 Payback period
- 12.1 Risk and the weighted average cost of capital (WACC)
  - 12.1.1 WACC: The theory
  - 12.1.2 WACC: The practice
  - 12.1.3 WACC: Example 1
  - 12.1.4 WACC: Example 2

## **TOPIC 7: DEBT, DIVIDENDS AND TAXES**

### **Lecture 8**

#### **Debt, Dividends and Taxes / Capital Structure Decisions**

- 13.1 Context: what is corporate finance?
- 13.2 Preliminaries
- 13.3 Financial leverage
- 13.4 The theory of capital structure (M & M)
  - 13.4.1 The key question
  - 13.4.2 Assumptions
  - 13.4.3 Definitions and symbols
- 13.5 The Modigliani – Miller Propositions
  - 13.5.1 Proposition 1: Conservation of Value (Dollars)
  - 13.5.2 Proposition 2: Conservation of Risk (Rates)
- 14.1 The nature of dividends
- 14.2 Choosing a dividend policy
- 14.3 M & M (1961) Dividend Irrelevance Proposition
  - 14.3.1 Assumptions
  - 14.3.2 Algebraic proof
  - 14.3.3 Intuitive example
- 14.4 “Home-made” dividends
- 14.5 Effect of imperfections

## **PART D – DERIVATIVE SECURITIES**

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### **TOPIC 8: FORWARD AND FUTURES CONTRACTS**

#### **Lecture 9: Derivative Securities (1)**

- 15.1 Introduction
- 15.2 Forward contracts
  - 15.2.1 Definition of a forward contract
  - 15.2.2 Forward contracts: Example 1
  - 15.2.3 Forward contracts: Example 2
  - 15.2.4 Forward contracts: Features
  - 15.2.5 What happens at expiry
  - 15.2.6 Weaknesses of forward contracts
- 15.3 Futures contracts: Description
- 16.1 Pricing of futures contracts: The “Cost-of-Carry” Model
- 16.2 The 90-day bank accepted bill (BAB) futures contract
  - 16.2.1 Specification of the BAB futures contract
  - 16.2.2 Hedging with BAB futures: Example

#### **Lecture 10: Derivative Securities (2)**

- 17.1 Why study options?
- 17.2 What is an option?
- 17.3 Buying call options
  - 17.3.1 Example and terminology
  - 17.3.2 Value (“payoff”) of a bought call at expiry
  - 17.3.3 Payoff and profit diagrams for bought calls
  - 17.3.4 What gives a call value (part 1)?
- 18.1 Buying put options
  - 18.1.1 Example and terminology
  - 18.1.2 Value (“payoff”) of a bought put at expiry
  - 18.1.3 Payoff and profit diagrams for bought puts
  - 18.1.4 What gives a put value (part 1)?

- 18.2 Selling calls and puts
- 18.3 Listed option markets
- 18.4 Intrinsic value and time value
- 18.5 What gives a call value (part 2)?
- 18.2.1 Calls and the risk-free interest rate
- 18.2.2 Calls and stock price volatility
- 18.6 What gives a put value (part 2)?
- 18.6.1 Puts and the risk-free interest rate
- 18.6.2 Puts and stock price volatility
- 18.7 Factors affecting option prices: Summary

## Bibliography – Core Readings

N.B. please check for the latest editions of recommended textbooks. In addition, further reading of academic and professional journals articles is suggested and expected.

Brealey, R. S. Myers and F. Allen, *Principles of Corporate Finance*, 9<sup>th</sup> Edition, McGraw Hill

Coombs, H. M. and D.E. Jenkins, *Public Sector Financial Management*, International Thomson Press

Cuthbertson, K., *Quantitative Financial Economics: Stocks, Bonds and Foreign Exchange*, John Wiley & Sons

Demirag, I. and S. Goddard, *Financial Management for International Business*, McGraw Hill

Emery D. R. and J. D. Finnerty, *Corporate Financial Management*, Prentice Hall

Hutchinson R., *Corporate Finance*, Stanley Thornes

Hull, J., *Options, Futures and Other Derivatives*, Prentice Hall

Levy, J. and M. Sarnat, *Capital Investment and Financial Decisions*, Prentice Hall

Lumby, S., *Investment Appraisal and Financing Decisions*, Chapman and Hall

McMenamin, J., *Financial Management: An Introduction*, Routledge

McLaney, E. J., *Business Finance: Theory and Practice*, Pitman Publishing

Moyer, R., J. McGuigan and W. Kretlow, *Contemporary Financial Management*, West Publishing

Samuels, J. M., F. M. Wilkes and R. E. Brayshaw, *Management of Company Finance*, Chapman and Hall



## Assessment

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### Assessment Overview

Your assessment for this subject comprises the following:

Assessment Task	Due	Length	Pass Mark	Weighting
1. Course Work	Date and Time to be advised	2500-3000 words	50% Overall	50%
2. End-of-semester exam	Date and Time to be advised	3 hours		50%

### Detailed description of assessment

#### Essay

Marks allocated to criteria:	Criteria
20%	<b>Focus</b> Does the essay set up a clear essay question to address? Does the essay stay within and fulfil the topic parameters?
30%	<b>Synthesis</b> Does the essay bring together the literature in a significant manner that addresses an essay question?
30%	<b>Soundness</b> Does the essay indicate a comprehensive understanding of the topic area and literature discussed?
10%	<b>Clarity of structure</b> Is the essay well organised and logically constructed to achieve synthesis while being mindful of the needs of the reader?
10%	<b>Mechanical Soundness</b> Is the essay clearly written, spell checked and grammatically sound and referenced appropriately?

#### Helping tips for a successful writing of coursework:

- 1 relevant principles and/or theory should be specifically related and applied to practice and supported by contemporary examples
- 2 explanation of the importance of your topic to decision making, strategy or problem solving
- 3 the review should adopt the format and style of either a report or briefing paper, and include conclusions and recommendations as appropriate
- 4 the application of analytical, research, evaluative and financial skills; use of quantitative support where possible

- 5 usage (and citation) of contemporary research
- 6 suitable references to the quotations offered
- 7 work appropriate to master's level in depth, maturity and quality

## **TASK**

Carry out suitable research and analysis which would allow you to write a 2,500 to 3,000 words report which fully reflects on one of the following assertions, and which meets, in full, the assessment criteria:

1. Separation of ownership and control, and agency costs
2. The determinants of capital structure
3. The capital structure around the world
4. Why companies pay dividends
5. Open topic (to be approved by Dr Cesario Mateus)

You may choose an appropriate coursework title, which must be agreed prior to your commenting your research, which relates to the course. Please, approach any of the lecturers with your proposal.

**Please remember the difficulties of and penalties for plagiarism, many previous students got failed because of the problems using references. So please read around and attribute arguments and ideas to their authors.**

## **Useful sources for assignment:**

### ***Journals & Newspapers***

Journal of Finance  
Journal of Corporate Finance  
Journal of Banking and Finance  
Journal of Portfolio Management  
Financial Analysts Journal  
Financial Management  
Financial Times  
Economist

### ***Electronic Databases in Library***

Science Direct Athens Intranet (full text articles)  
Business Source Premier EBSCO (full text business journals)  
Emerald (full text international and business journals)  
Fame (financial information on UK companies)  
Lexis Nexis (Lexis Professional) (national /regional newspapers)  
UK GAAP (financial and accounting information)  
Hydra (financial information on stocks and shares)

### ***General Financial Websites***

[www.bloomberg.com](http://www.bloomberg.com) (market news and statistics)  
[www.gtnews.com](http://www.gtnews.com) (Global Treasury news)  
[www.economist.com](http://www.economist.com) (Economist magazine)  
[www.cfo.com](http://www.cfo.com) (CFO magazine)  
[www.ft.com](http://www.ft.com) (Financial Times)

## **Examination**

This will be a three hour examination in the early January 2011. Please pay attention to further announcement on the exam.