Specialist Masters Programme
Course handbook
MSc in Finance & Investment

September 2011
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Section One: Course Director’s Welcome

September 2011

Dear MSc Finance and Investment Students:

It is my pleasure to welcome you to Cass Business School’s MSc in Finance and Investment programme.

We have designed a course that covers the core financial subjects needed for success in the financial services industries. We have built in as much flexibility as possible, giving you the possibility of tailoring the course for your own needs, not only through the electives on offer, but with some of the core modules as well.

The purpose of this handbook is to explain the programme’s specific rules and regulations, both at an administrative and academic level. The handbook sets out the structure of the course, information on the individual modules, and outlines the routes on resolving course related problems. You should read ALL sections of this handbook carefully.

As your Course Director, I will have overall responsibility for the coordination of the teaching and administrative issues. Your Course Officer, Lenka Havlikova will be your point of contact for day to day issues. Together we will ensure that your experience at Cass lives up to, and hopefully, exceeds your expectations. We know that the needs of part-time students differ from those of full-time students and we have prepared the year ahead accordingly.

On behalf of Lenka and myself, I would like to extend a very warm welcome to you.

Dr Nick Motson
Course Director
Section Two: Programme Information

Programme Aims

The programme aims to provide students with thorough post-graduate financial training: Risk Management and Investment Management. The degree therefore aims to equip students for high level careers in investment banking, commercial banking, asset management and financial consultancies, either in the City or in almost any country in the world. The emphasis is on analytical and academic content, with sufficient practical and vocational application for students to appreciate the relevance of the course material.

The programme is founded on three principles: academic rigour, relevant knowledge and international orientation. The programme also has a strong vocational orientation without compromising its academic rigour. Students acquire a sound knowledge of the theoretical foundations that underpin modern finance, as this is applied in the finance industry. At the same time, students learn to apply these principles in practice through case studies, specialist industry standard software, use of financial databases and analysis, understanding of industry trends and developments in conjunction with City institutions. Many leading practitioners from such institutions contribute to the courses, providing a helpful link between theory and practice.

The programme will make it possible for participants to:

- acquire a solid theoretical and practical background in the areas of corporate finance, commercial and investment banking, investment management and risk management
- be able to move into specific departments in their organisations or seek senior positions in a variety of financial institutions
- become part of a global alumni network.
Programme Structure

The programme is comprised of the following subjects, details of which are provided later. Students on the MSc in Finance and Investment enrol only on a part-time basis and therefore complete the programme over two calendar years. It is possible to complete the programme in five terms, rather than six. Details of how to do this will be provided by the Course Director.

Programme Structure Summary Description

Students study eight core modules. Five of these modules are compulsory. Students then get to choose three additional core modules from a possible choice of five, giving them the flexibility to tailor the course to suit their own learning needs and interests. Students will also be required to study three electives, and to complete a business research project of circa 8,000 words. Below is a summary of modules and credits:

<table>
<thead>
<tr>
<th>Compulsory core modules</th>
<th>Subtotal Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 modules of 15 credits each</td>
<td>75 credits</td>
</tr>
<tr>
<td>Optional core modules</td>
<td></td>
</tr>
<tr>
<td>3 modules of 15 credits each</td>
<td>45 credits</td>
</tr>
<tr>
<td>(chosen from a list of 5)</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td>3 electives of 10 credits each</td>
<td>30 credits</td>
</tr>
<tr>
<td>(chosen from the Specialist Masters list and to be taken in the 3rd term of either the 1st or 2nd year)</td>
<td></td>
</tr>
<tr>
<td>Business Research Project</td>
<td></td>
</tr>
<tr>
<td>Circa 8,000 word project</td>
<td>30 credits</td>
</tr>
<tr>
<td>TOTAL Credits: 180</td>
<td></td>
</tr>
</tbody>
</table>
## Assessment Matrix

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credits</th>
<th>Assessment weightings used to calculate module mark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coursework</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year One - Term One</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Methods for Finance SMM951</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Theory of Finance SMM952</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Year One - Term Two</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securities SMM722</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Choose one of the below modules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioural Finance SMM273</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Financial Statement Analysis SMM115</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Year Two – Term One</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Risk Management SMM124</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Portfolio Management SMM950</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Year Two – Term Two</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Choose two of the below modules</td>
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<td></td>
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</tr>
<tr>
<td>Alternative Investment SMM519</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Derivative Applications SMM962</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Foreign Exchange SMM520</td>
<td>15</td>
<td>20%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Term Three</strong> (spread over two years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Research Project SMM521</td>
<td>15</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Elective 1 SMMxxx</td>
<td>10</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Elective 2 SMMxxx</td>
<td>10</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Elective 3 SMMxxx</td>
<td>10</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Degree Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>180</td>
<td></td>
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</tr>
</tbody>
</table>

As a general rule 2.4 CAPS* credits equals approximately 1 ECTS* based on an MSc programme of 180 credits.

**ECTS (European Credit Transfer and Accumulation System)**

**CAPS (Credit Accumulation of Programme Specification)**

Where a module is assessed using group coursework 20% of the mark for the component will be determined by peer assessment. Please refer to section four for details.

**Note:** Coursework may take the form of an individual assignment, group assignment or invigilated test.
Term Dates and Examination Periods

**Induction**
12\textsuperscript{th} September 2011 – 23\textsuperscript{rd} September 2011

**Term One**
26 September 2011 - 02 December 2011

**Term One Examinations**
09 January 2012 - 20 January 2012

**Term Two**
23 January 2012 - 30 March 2012

**Term Two Examinations**
23 April 2012 - 04 May 2012

**Term Three**
07 May 2012 - 15 June 2012

**Term Three Assessments**
25 June 2012 - 06 July 2012

**Term One and Term Two Resit Examinations (including Term Three resit tests)**
13\textsuperscript{th} August – 24\textsuperscript{th} August 2012

**Research Project Submission Date**
01 September 2012

Students are expected to be in attendance at lectures and other classes during term time, attend all invigilated tests and examinations. Students should not therefore make travel arrangements during term time. Any absence from any form of assessment, which does not constitute valid extenuating circumstances, will result in the student resitting the module as a second attempt.

Part time students should also note that exams may take place during day time hours.
Section Four Module Descriptions

ALTERNATIVE INVESTMENT
SMM519

MODULE LEADERS: Mr Edgar Miller and Dr Nick Motson

SESSIONS 10 x 3 hour sessions
In addition, students will be expected to devote an equivalent amount of learning time in private and group study of course material. The preparation of the projects will involve additional time in private study and independent empirical research.

MODULE ASSESSMENT The module will be assessed by a coursework* (25%) and an exam (75%)
*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS
Over the last 10 years investment has changed very significantly. Stock markets went up and came down again, interest rates dropped to a historical low, and pension fund deficits became widespread. With traditional asset classes expected to deliver lower returns in the future compared with the past, many high net worth individuals and institutional investors have turned to alternative investment classes, with hedge funds, private equity and commodities being amongst the most popular. In this course, we will introduce students to these asset classes, their pros and cons, and the role they can play in a diversified investment portfolio. This module will provide students with all the insights needed to make well-informed decisions with regard to today’s complex investment management environment.

SYLLABUS
Hedge Funds
Rising from relative obscurity, over the last 15 years hedge funds have become increasingly popular with high net worth individuals as well as institutional investors. As a result, the number of hedge funds has risen from around 500 in 1990 to an estimated 9000 in 2008. Over the same period, assets under management are estimated to have increased from $50 billion to around $2 trillion at its peak in the summer of 2008. Based on the latest research and practical insights, this part of the module will discuss:

- the differences between hedge funds and mutual funds
- the main hedge fund databases and indices
- the most typical hedge fund investment strategies
- the statistical properties of hedge fund returns
- hedge fund performance so far and its drivers
- the role hedge funds may play in an investment portfolio.
Private Equity Investment
The objective of this course is to provide a broad appreciation of private equity for investment management and finance students who are likely to take up careers in such areas as asset management, principle investment, commercial banking, or other financial services or industrial sectors where an appreciation of private equity may be important. It is not intended to prepare students to become practitioners in the private equity sector, although it will provide a good introduction for such students.

On completion of the course, students should understand:

- How private equity has evolved over time, its global structure and importance.
- The distinctive characteristics of the two primary forms of private equity – Venture Capital and Buyouts – and the role they play in investments, their economics, returns, risks, skill requirements, and similarities/differences.
- The key phases and disciplines of the private equity investment life-cycle, as well as the time-scale for making and realising private equity investments.
- How prospective private equity deals are evaluated, modelled, valued, and structured
- How private equity fund managers do their job and interact with the entrepreneurs who manage their portfolio companies.
- How private equity funds work, their economics, investment returns, and how returns are measured and benchmarked.
- The distinctive characteristics of private equity as an important asset class, the role private equity plays in diversified multiple-asset-class investing, and key considerations for institutional investment in private equity funds.
BEHAVIOURAL FINANCE
SMM273

MODULE LEADER
Gulnur Muradoglu

SESSIONS
10 x 3 hourly sessions

MODULE ASSESSMENT
This module will be assessed by a group coursework* (70%) and a report (30%)

EDUCATIONAL AIMS
The course aims to introduce graduate students to the key insights from research in "behavioural finance", an emerging body of literature that attempts to understand the effect of cognitive bias and social psychology on asset valuation and hence pricing. Students are motivated to grasp these ideas by application in trading games, forecasting exercises and computer simulations designed to record the degree of bias in responses and suggest techniques to combat such bias.

The course will start with a review of modern theory of finance on asset valuation. The experience of practitioners on the use of modern finance theory and related problems/possible solutions will be discussed. The course is expected to cover the major issues in behavioural finance. These include biases, which frequently occur in financial decision-making such as optimism, mental framing, over-reaction, trend-chasing, conservatism and anchoring of expectations. Emphasis will be made on related work in psychology in terms of several theories of human behaviour that have policy implications in finance. Every week the students are expected to come to class prepared and be able to discuss the reading material. Also, every week the students will be expected to make group presentations, participate in several forecasting and trading games and make their own decisions in financial settings. There will be guest speakers from the industry to share their experiences of financial behaviour in real world.

LEARNING OUTCOMES
On completion of this module students will be able to:

- Demonstrate systematic understanding of technical tools required to understand issues in Behavioural Finance.
- Demonstrate sound comprehensive knowledge of how market psychology influences financial markets.
- Interpret accurately financial models while demonstrating sound understanding of their behavioural foundations.
- Derive abstract understanding of issues through simplified model building.
- Undertake mathematical and numerical exercises in a way which builds both technical skill and economic intuition.
SYLLABUS

This module will make use of contemporary topics and cases in order to maintain its relevancy, it is likely to include such topics as:

1. Introduction: Fundamentals of Asset Pricing
2. Biases In Financial Decision Making
3. Prospect Theory and Loss Aversion
4. Mental Framing - Computer Game on Trading
5. Heuristics and Biases in Financial Forecasts - Feedback on Games
6. Representativeness and Familiarity
7. Trend seeking in investment behaviour
8. Role of trust in financial decision making
9. Financial Crisis and Human Behaviour
10. Conclusions

A more detailed syllabus will be available at the beginning of the module.

READING LIST

Given the need to use contemporary material to develop understanding of the particular relevancy of this module, up to date reading lists will be provided at the beginning of the term. Initial suggested reading includes:

Thaler, R.H., Sunstein, C. Nudge: Improving decisions about health, wealth and happiness, Yale University Press, 2008


Thaler, R.H., Advances in Behavioural Finance, Russell Sage Foundation, NY, 1993
BUSINESS RESEARCH PROJECT
SMM521

MODULE LEADER
A project supervisor will be allocated.

SESSIONS
This is an individual project which students will develop in their own time with support from their project supervisor.

MODULE ASSESSMENT
Coursework 100%
Delivery of the final project, indicative length: 8000 words

EDUCATIONAL AIMS
- To train students to undertake individual research and provide them with an opportunity to specialise in a contemporary business or finance topic related to their future career aspirations.
- To integrate and apply concepts from different aspects of their MSc.

LEARNING OUTCOMES
On completing the project students will be able to:
- identify specific business or finance related issues which would be useful to research and shape an achievable research question around them
- develop a research question and plan and carry out a research programme to address the question
- understand the theories and recent research relating the project topic
- understand how to apply research methodologies to practical business and commercial issues
- show confidence in overcoming problems raised in the course of a practical research project
- accept the challenge of carrying out a piece of research with elements of originality.

PROJECT REQUIREMENTS
The choice of project is your responsibility. It is most important that you choose an area you are happy to work in, and in which you are confident of your abilities.

Students are encouraged to start thinking about project ideas at the beginning of their studies. By the end of the first term you will have gained sufficient knowledge to start to develop ideas that can be discussed with faculty. We expect you to identify the basic idea or research question, though this is likely to be modified after discussion with academic staff.
The types of project allowed are:

<table>
<thead>
<tr>
<th>What you can do.</th>
<th>What you can't do</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Business report on a contemporary issue</td>
<td>- Pure literature surveys</td>
</tr>
<tr>
<td>- Business plan</td>
<td>- Some evidence that the writer has learnt a new subject, a sort of extra elective</td>
</tr>
<tr>
<td>- Statistical test of literature driven hypothesis</td>
<td>- A synthesis of other writing or a piece of journalism</td>
</tr>
<tr>
<td>- Empirical feasibility of a financial strategy</td>
<td>- A mere compendium of facts and statistics</td>
</tr>
<tr>
<td>- Development of a new product/ service / finance strategy</td>
<td>- Projects totally unrelated to relevant academic discipline and literature.</td>
</tr>
<tr>
<td>- Market survey</td>
<td></td>
</tr>
<tr>
<td>- Case study on a specific issue within a particular company / organisation</td>
<td></td>
</tr>
<tr>
<td>- Numerical project that describes and implements one or more numerical methods for pricing, hedging or reserving for derivatives or portfolios.</td>
<td></td>
</tr>
</tbody>
</table>

**Reading list**

Student research and reading list will be defined by the subject matter of the project.
DERIVATIVE APPLICATIONS
SMM962

MODULE LEADER: Dr Nick Motson

SESSIONS: 10 x 3 hourly sessions

MODULE ASSESSMENT: This module will be assessed by a coursework* (25%) and an exam (75%)

The coursework will be assigned in week five and will be undertaken in groups. The exam will last two hours and consist of six essay questions from which students will have to answer four.

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS

The aim of the course is to develop students' understanding of derivatives, particularly forwards, options and swaps in both vanilla and exotic forms. A strong emphasis will be placed on the use of derivatives in practical applications including risk management and structured products.

LEARNING OUTCOMES

At the end of the course students will be able to:
- understand the pricing models for derivative securities
- understand the uses of derivatives in risk management
- apply derivatives to the development of structured products

SYLLABUS

- Introduction to Derivatives, Pricing Forwards & Futures
- Introduction to Options, Binomial Model, Black Scholes Model & Option Strategies
- Advanced Options & Exotic Options
- An Introduction to Equity Structured Products
- Advanced Equity Structure Products
- Commodity Derivatives & Commodity Structured Products
- Interest Rate Derivatives & Structured Products
- Foreign Exchange Derivatives & Structured Products
- Structured Products on Funds (traditional & hedge fund)
READING LIST

The module makes extensive use of industry articles & term sheets that will be provided at each lecture and posted on CitySpace. The following texts will also be used:

John C. Hull. “Options, Futures, and Other Derivatives” Prentice Hall
FINANCIAL RISK MANAGEMENT
SMM124

MODULE LEADER: Professor Keith Cuthbertson

SESSIONS: 10 x 3 hourly sessions

MODULE ASSESSMENT: This module will be assessed by a coursework* (25%) and an exam (75%)

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS
The purpose of this module is to provide a solid background in the use of derivatives for risk management and methods to evaluate financial market risks (Value at Risk-VAR). Regulators and leaders in the corporate and financial communities are now converging on VAR as an acceptable method to measure and control financial risks. The practical exercises will illustrate the implementation of VAR measurement system for typical portfolios, including the RiskMetrics system. We also provide a brief overview of credit risk and credit risk models under Basel II. The assumptions and limitations behind current methodologies will also be discussed.

LEARNING OUTCOMES
Students will be able to:
• Have a comprehensive understanding of the use of derivatives in risk management for total portfolio market exposure for banks, other financial institutions and corporates.
• Understand practical issues in using derivatives in risk control and modelling related to VAR / Risk Metrics.
• Understanding, implementation and use of market risk management techniques is one of the main learning outcomes of the MSc Investment Management programme.
• Familiarise themselves with dynamic hedging using derivatives and measuring risk using portfolio VAR, VAR for fixed-income, currency, equity instruments, Monte Carlo Simulation, Historic Simulation and Bootstrapping.

SYLLABUS
• Stock index and interest rate futures: pricing, hedging and risk management.
• Uses, pricing and valuation of interest rate and currency swaps and their Value at Risk.
• Derivatives on fixed income, currency and equity portfolios.
• Options: BOPM and risk-neutral pricing, Delta hedging and the Greeks.
• Exotic Options and Weather Derivatives: uses in risk management
• Forecasting Risk and Correlations
• Implementing VCV(Delta-Normal) Extreme Value Theory and Structured Monte Carlo, Historic Simulation and Bootstrapping.
• Overview of Credit risk-VAR models.
READING LIST

The recommended texts are:
**FINANCIAL STATEMENTS ANALYSIS**  
**SMM115**

**MODULE LEADER**  
Stefano De Cesaris

**SESSIONS**  
10 x 3 hourly sessions

**MODULE ASSESSMENT**  
This module will be assessed by a group coursework* (25%) and an exam (75%)

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

**EDUCATIONAL AIMS**

To provide a clear understanding of how users of financial information interpret accounting reports when making business decisions, with particular emphasis on investment decisions (i.e. buying or selling assets). The course is based on international accounting standards (IFRS) and US GAAP.

**LEARNING OUTCOMES**

Systematic understanding of:
- the mechanics and practice of accounting
- the role of accounting as an input to corporate valuation
- the role of accounting as a means of resolving (or a cause of!) agency problems between shareholders, lenders and managers.

Ability to:
- analyse financial statements
- assess the operating performance and the non-operating performance of a business
- use accounting information for equity securities valuation
- use accounting information for credit analysis.

**SYLLABUS**

The Institutional Framework
- Accounting standards
- Accounting principles: Accrual accounting

Financial Statements
- The income statement: revenue recognition criteria, cost analysis, profitability, EPS, recurring vs non-recurring earnings, ratio analysis.
- The balance sheet: assets and liabilities; working capital; fixed assets; debt; equity, ratio analysis.
- Cash flow statement: direct vs indirect; measuring free cash flow, ratio analysis.
- Off-balance sheet items.
• Analysis of financial statements: comprehensive ratio analysis, including returns
  Specific issues in Financial Statement.
• Leasing
• Pensions and other post employment benefits
• Foreign currency adjustments: transaction and translation gains & losses
• Accounting for hedges and derivatives
• Equity and options based compensation

READING LIST

• Lecture notes
• Reference textbooks (one of the following)
  o Stolowy, Lebas, Ding, Financial Accounting and Reporting 3e, Cengage Learning
    (2010)
  o Alexander, Nobes, Financial Accounting: An International Introduction 4e, FT
    Prentice Hall (2010)
FOREIGN EXCHANGE
SMM520

MODULE LEADER:  Professor Keith Pilbeam

SESSIONS  10 x 3 hour sessions

MODULE ASSESSMENT  This module will be assessed by a mid-term invigilated test (25%) and an exam (75%)
This is a how-to-do module. A fair amount of reading should be done before the lectures. Class discussions and Q&A should play an important role.

EDUCATIONAL AIMS

In a highly globalized world, foreign exchange (FX) clearly plays a crucially important role in economics and finance. The FX market (which includes both the cash and the derivatives markets) is today the largest financial market in the world. The educational aim of this module is to enable Cass MSc students in “Investment Management” and in “Finance and Investments” to deal effectively with the FX problems they will come across in their professional lives. It will also lead to a better understanding of the economics behind currency movements and the limitations of forecasting.

LEARNING OUTCOMES

In this module we shall cover a number of topics designed to give a solid operational understanding of FX, from the point of view of:
- investments denominated in foreign currency (international portfolio diversification and currency hedging)
- analyzing the implications of fx exposure and risk for companies
- capital markets and corporate finance activity (msc in investment management and finance and investments are often employed in banks and other financial institutions)
- investments in foreign currency as an asset class.

SYLLABUS

- Statistics on the forex market
- FX quotations, cross rates, exchange rate indices, trade weighted exchange rates
- Covered Interest Rate Parity – arbitrage, speculation and hedging using forward market
- Foreign exchange intervention both sterilized and non sterilized
- Purchasing Power Parity and Uncovered Interest Rate Parity
- FX derivatives (futures, currency swaps, options)
- The macroeconomic modelling of exchange rates, the monetary and portfolio balance models and the risk premium
- Forecasting FX rates can we beat a random walk?
READING LIST

MODULE LEADER
Professor Andrew Clare

SESSIONS
10 x 3 hour sessions
In addition, students will be expected to devote an equivalent amount of learning time in private and group study of course material. The preparation of the projects will involve additional time in private study and independent research.

MODULE ASSESSMENT
This module will be assessed by a coursework* (25%) and an exam (75%)

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS
The main objective of this course is to give students a thorough understanding of practical application of modern portfolio theory. The course provides the students with coherent framework for thinking about a range of practical, topical asset management and risk management issues.

LEARNING OUTCOMES
On completing the course the students will:
- be able to apply their theoretical learning in practical contexts
- understand some of the main issues and themes currently facing the asset management industry; and
- be able to formulate investment strategies of their own.

SYLLABUS
- Performance evaluation
- Asset allocation: strategic and tactical
- Investment styles and strategies
- Portfolio diversification and alternative investing
- Liability driven investment
- Risk rating investment funds: a case study

READING LIST
Given the wide range of topics covered in this module there is no single book that covers the entire course. The primary reading materials are the lecture notes which contain detailed sources of information. However, the following books cover large parts of the course and are therefore good reference sources.
Fabozzi, F.J et al., ‘Handbook of Equity Style Management’, Frank J.
Fabozzi Associates
MODULE LEADERS
Dr Elena Kalotychou and Dr Lorenzo Trapani

SESSIONS
10 x 3 hour sessions
Students are also expected to attend regularly scheduled workshops. The latter are intended to demonstrate the use of Excel and the econometric package EViews for the practical implementation of the theoretical material covered during the lectures using a data set provided by the lecturer. In addition, students will be expected to devote an equivalent amount of learning time in private and group study of course material and preparation of coursework.

MODULE ASSESSMENT
This module will be assessed by a group coursework* (25%) and an exam (75%)

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS
The module will provide a review of the classical linear regression model and a discussion of how econometric models can be validly estimated. Both univariate time-series and multivariate structural models will be considered. Via case studies and computer modelling exercises, students then learn how to apply these techniques to real data. Emphasis is placed on applications of methods, and the teaching involves an examination of some empirical studies using models for the equity and fixed income markets.

LEARNING OUTCOMES
By the end of the module, it is expected that the student will be able to:
- comprehensively understand how econometrics can be applied to real-world problems
- explain the fundamentals of the statistical theory underlying financial models
- formulate econometric models for testing financial theories and hypotheses
- interpret and analyse the results from an estimated econometric model
- comprehend and critically evaluate the use of econometrics in the published academic finance literature
- appreciate the range of more advanced techniques that exist and have the foundations for further study of econometrics
- introduce the principles and tools of financial risk measurement.

SYLLABUS
Lecture 1 Introduction to Econometrics and Simple Linear Regression
Lecture 2 The Multiple Regression Model: Estimation, Joint Hypotheses, Goodness of Fit
Lecture 3 Misspecification: Multicollinearity, Functional Form, Normality, Seasonality
Lecture 4 Heteroskedasticity and Autocorrelation
Lecture 5 Eviews Lab
Lecture 6 Stationarity; ARMA models
Lecture 7 Cointegration
Lecture 8 Eviews Lab
Lecture 9 Volatility Models
Lecture 10 Eviews Lab

Note: The above syllabus is subject to change depending on the prevailing conditions

READING LIST

Pre course reading
Cass MSc Induction Programme 2011, Statistics and Financial Mathematics

Core reading

Additional reading list
- Ramanathan, R., *Introductory Econometrics with Applications*, Southwest
- Hill, R., W. Griffiths and G. Judge, *Undergraduate Econometrics*, Wiley & Sons
SEcurities
SMM722

MODULE LEADERS
Professor Andrew Clare and Dr Sotiris Staikouras

SESSIONS
10 x 3 hour sessions
Students will be expected to devote at least this amount of time again in private study on the Course topics

MODULE ASSESSMENT
This module will be assessed by a group coursework* (25%) and an exam (75%)
The coursework assignment will be to produce an essay of circa 2,000 words on a topic related to the course material.

*Where Coursework Assessment is by Group Coursework please note Peer Assessment will be incorporated into the final mark. Please refer to section five for details.

EDUCATIONAL AIMS
The aim of the course is to develop an understanding of the cash securities which will enable students to understand how portfolio managers, corporate treasurers, investment bankers, financial analysts and traders use such securities in their various roles.

LEARNING OUTCOMES
A student should be able to understand the:
• interaction between the macro-economy and cash securities
• interaction between fixed income securities and equities nature of different fixed income securities
• risk characteristics of plain vanilla and more complex fixed income securities construction of a yield curve and also the messages that that curve might convey about investor’ expectations
• operational, strategic and valuation aspects of modern equity markets methods used to analyse complex equity market investment decisions
• importance of the dcm methods of valuing equities.

SYLLABUS
• The macroeconomic environment and cash instruments
• Bond returns and bond price volatility
• Term structure of interest rates
• Interest rate derivatives and swaps
• Credit derivatives
• Market based valuation and equity price multiples
• DCF valuation models
• Contingent claim equity valuation
READING LIST

Damodaran A. “Investment valuation” Wiley.
THEORY OF FINANCE
SMM952

MODULE LEADERS
Dr Natasha Todorovic and Giovanni Cespa

SESSIONS
10 x 3 hour sessions
In addition, participants are expected to devote two - three times the amount of contact time in learning either privately or in groups.

MODULE ASSESSMENT
This module will be assessed by a mid-term invigilated test (25%) and an exam (75%)

EDUCATIONAL AIMS
The aim of this course is to develop an understanding of modern finance so that the corporate manager, the investment banker and the financial analyst will have the conceptual foundations for making informed assessments of key financial decisions. The course will make it possible for participants to:

- Introduce students to the principles and tools of financial theory as used in asset pricing.
- To acquire a clear understanding of portfolio risk and return characteristics, use of diversification for risk reduction, determination of efficient and optimal portfolios with and without short-selling restriction, evaluation of portfolio performance and role of asset pricing models for pricing securities.
- Familiarise students with the use of these tools, both through the lectures and through empirical examples.
- Examine recent developments in the theory and practice of portfolio management
- Appreciate the implications of modern finance theory on practical corporate finance issues.
- Develop analytical skills to evaluate complex corporate finance decisions.
- Understand the perspectives of corporate managers, shareholders, financiers and the financial intermediaries of key financial decisions.
- Familiarise with contemporary corporate finance practice and market trends evolving in different countries.

LEARNING OUTCOMES
On completing the course the students will:
- have a comprehensive understanding of asset pricing theory
- have a comprehensive understanding of analysing risk and return characteristics of individual financial assets and their application in portfolio construction and investment management process
- be able to address and solve real asset pricing problems
- be able to contribute to the implementation and use of quantitative and theoretical tools in a financial organisation
- know the key considerations affecting corporate finance decisions
- understand the context and structure of corporate finance transactions
- compete for management positions in corporate and financial institutions
- develop and execute complex corporate finance deals.
SYLLABUS

The aim and the learning outcomes will be addressed in the lectures. The lectures will embody activities such as participative discussions and problem solving. The following topics will be covered in the lectures:

**Lecture 1** Introduction to portfolio theory and asset management  
**Lecture 2** Concept of diversification, portfolios of risky assets and choice of optimal portfolio  
**Lecture 3** Portfolios of risky and riskless assets and choice of optimal portfolio  
**Lecture 4** Capital Asset Pricing Model  
**Lecture 5** Multi-factor models (Arbitrage Pricing Theory)  
**Lecture 6** Fundamentals of Capital Budgeting  
**Lecture 7** Cost of Capital  
**Lecture 8** Capital Structure Decision: Fundamental Principles  
**Lecture 9** Dividend Policy  
**Lecture 10** The Theory and Practice of Corporate Risk Management

READING LIST

Research papers and financial press.

**Supplementary reading:**  
**Elective Information**

Cass Business School provides an extensive range of elective modules for the different MSc programmes. A special elective handbook, regarding your term three selection of modules, will be distributed in the second term and will provide further information.

Electives which have previously been pre-selected and offered to MSc Finance and Investment students include:

- Credit Risk Management
- Fixed Income Securities and Derivatives
- Mergers & Acquisitions
- Trading and Hedging in the Forex Market
- Monetary Policy in Global Context (Singapore based)

Please note the School reserves the right to withdraw an elective if demand is insufficient and to add new electives if they are available. Space restrictions and timetable availability may also apply.
Section 4: Assessment Regulations and Regulations for the Award of the Degree

Described below are the rules governing the award of a master degree in Finance and Investment. For further information, the City University’s complete set of “Ordinances and Regulations” are published on the University’s website.

Assessment Regulations

Assessment Calculations

The rules governing calculation of module and overall degree marks are as follows;

- All modules must be passed individually.
- There are no minimum mark requirements for separate assessment components (unless specifically stated). However, it is compulsory to complete all coursework and exam components and no module mark can be awarded until these are completed.
- A module mark is calculated by aggregating marks for all assessment components, unless otherwise stated in the module outline (section three).
- Where modules are assessed by both exam and coursework, these are weighted to calculate the module mark – please see the assessment matrix in section two for the relative weightings.
- Where there are several pieces of coursework, the coursework results are averaged according to weightings.

To calculate the overall degree mark, module marks are combined using weightings in line with the relative credit values of modules.

Failure and Re-sitting of Modules

- Any module with an aggregate mark of less than 50% is deemed to have been failed and must be resat.
- To resit a failed module, a candidate must re-do all assessment components which gained marks of less than 50%.
- Modules may be resat only once.
- A candidate who successfully completes a resit shall be awarded the credits for the module. The mark awarded for the resit components will be capped at 50%. The mark awarded for other components will be the original mark. This mark will also be used in calculating the overall degree mark.
- A candidate who does not pass his or her resit by the date specified by the Assessment Board will not progress on the programme and the Assessment Board will normally make a recommendation that they withdraw.
Coursework

All coursework and invigilated tests are compulsory and count towards the final degree. In some modules presentations or invigilated tests may replace written coursework assignments.

Some subjects may be assessed by coursework only. Precise details concerning examined and non examined modules are provided in the module outlines.

Please note coursework is required to be submitted for assessment by the specified deadline date. Late coursework will receive imposed penalties. Late coursework will immediately receive a deduction of five marks on the first day of lateness, with one further mark deducted for each day of lateness, for a maximum of five days. After this point coursework will not be accepted and a mark of zero will be awarded.

All coursework should be submitted electronically via the virtual learning environment, Moodle. It is essential that you keep a copy of all coursework submitted.

All sources used should be cited using the Harvard referencing system. Further information about this can be found on the Cass website:


Coursework will be returned to students as quickly as possible with the aim of students receiving feedback within three to four weeks of their submission

Peer Assessment

In many careers in Banking and International Finance working as part of a team is an integral part of the role. Learning the skills to support successful team working and build successful interpersonal relationships is an important element of your MSc course. To help you do this Cass has developed a peer review strategy which is part of the assessment for this module.

The process works as follows:

- At the end of each of the applicable modules you will receive a link to the peer review database, which will allow you to complete the assessment for each member of your module group.

- You will only be able to access the peer review database for a defined period of time (usually around one - two weeks) following submission of your coursework, after which the database will be closed and you will not be able to access it.

- You will be asked to review the performance of each member of your group by grading them on a number of criteria and providing constructive commentary, they will be doing the same for you. The criteria will be available through the link you receive.

- You should think carefully about the grades you give and the comments you make – ensure they are truthful and constructive as they will be reviewed by lecturers.
• Do not be tempted to award artificially low or high grades in your peer review, this will be noticed and moderated by the module leader.

Please note: Where peer assessment is used you must complete it in order to access the full range of marks for the module. If you do not complete the peer review element of your assessment by the given deadline you will receive a zero grade for it which will impact on the final result you receive for the module. Please refer to the individual module outlines for clarification of which modules this applies to.

Degree Requirements

To qualify for a Masters degree, a candidate must achieve at least 50% as an aggregate mark for each module and an overall degree average mark of 50%. This will result in the acquisition of 180 credits, which is the number required to achieve a masters degree in Finance and Investment

Award of Distinction

To calculate the overall degree mark, all module marks are combined using the weightings in the Assessment matrix table. The award of distinction for the masters is based on:

• An overall degree mark of at least 70%, with no modules failed at first attempt.
• However, where a student has one resit and passes, achieves an overall degree average mark of 70% or above, should be awarded a merit and not a pass.

Award of Merit

To calculate the overall degree mark all module marks are combined using the weighting in the table. The award of merit for the Masters is based on:

• An overall degree mark between 65% - 69.9% inclusive.
• No modules failed at first attempt.

Postgraduate Diploma

A student who has not accumulated enough credits to be awarded a masters degree may be awarded a postgraduate diploma provided they have satisfied the following conditions:

1. The total number of credits gained is equal to or greater than the minimum credits stipulated in the programme specification for the award of a diploma.

For the award of a diploma, a student may compensate a maximum of 20 core or core elective credits provided the following conditions are met:

1. The mark achieved for the module(s) to be compensated is at least 40%.
2. The average mark of all modules to be counted towards the diploma, including those modules to be compensated, is at least 50%.
Note that:

- The diploma average will be calculated in the same way as the masters average as specified in the programme specification;
- The award of distinction and merit will also be calculated in the same way as for the masters degree, as specified in the programme specification.

**Periods of Registration**

The periods allowed for completion of the qualifications are:

- Four years for a masters degree: full or part-time
- Two years for a postgraduate diploma: full or part-time
# Grade Related Criteria

<table>
<thead>
<tr>
<th>Class</th>
<th>%</th>
<th>Literary</th>
<th>Knowledge</th>
<th>Independent thought, uses of sources and research materials</th>
<th>Presentation</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>85-100</td>
<td>A</td>
<td>Outstanding</td>
<td>Comprehensive and informative knowledge of subject area, may include - new knowledge derived from which the marker and wider community may learn; addresses the learning outcomes/assessment criteria in full</td>
<td>Where relevant, evidence of independent reading, thinking and analysis and strong critical ability</td>
<td>Well-constructed</td>
</tr>
<tr>
<td></td>
<td>80-84</td>
<td>Excellent</td>
<td>Shows sophisticated or strong - shows knowledge of complex issues or a broad range of issues and addresses the learning outcomes/assessment criteria well.</td>
<td>Where relevant, show evidence of wide and comprehensive reading and critical ability</td>
<td>Clearly written</td>
<td>adhere to the principles of good academic practice</td>
</tr>
<tr>
<td></td>
<td>75-79</td>
<td>Very good</td>
<td>Shows sound knowledge of a broad range of issues or detailed knowledge of a smaller number of issues; makes a good attempt to address the learning outcomes/assessment criteria, realising all to some extent and some well</td>
<td>Evidence of thorough research of the topic(s) but some answers may not be complete or arguments sufficiently explored. Some critical ability will be evident.</td>
<td>Well-structured and logically written</td>
<td>demonstrate good academic practice</td>
</tr>
<tr>
<td></td>
<td>70-74</td>
<td>Merit</td>
<td>B</td>
<td>Good</td>
<td>Sound knowledge of a broad range of issues or detailed knowledge of a smaller number of issues; makes a good attempt to address the learning outcomes/assessment criteria, realising all to some extent and some well</td>
<td>Evidence of thorough research of the topic(s) but some answers may not be complete or arguments sufficiently explored. Some critical ability will be evident.</td>
</tr>
<tr>
<td></td>
<td>65-69</td>
<td>C</td>
<td>Satisfactory</td>
<td>Adequate knowledge of important issues – some level of response to all learning outcomes/assessment criteria but may not include important elements or information that is fully accurate.</td>
<td>Where relevant, development of ideas is limited but attempts will be made to analyse materials critically</td>
<td>Expression and structure may lack clarity</td>
</tr>
<tr>
<td></td>
<td>50-64</td>
<td>Pass</td>
<td>D</td>
<td>Poor</td>
<td>Unsatisfactory work - inadequate knowledge of the important issues and doesn't succeed in grasping key issues, therefore learning outcomes/assessment criteria will not be realised</td>
<td>No real development of ideas and critical analysis will be very limited.</td>
</tr>
<tr>
<td></td>
<td>41-49</td>
<td>Fail (0%-49%)</td>
<td>E</td>
<td>Very poor</td>
<td>Knowledge is lacking either through omission, the inclusion of large amounts of irrelevant information or evidence of significant misunderstanding - totally inadequate attempt to address the learning outcomes/assessment criteria</td>
<td>No critical ability will be displayed</td>
</tr>
</tbody>
</table>
Section Five: Additional Information

The Course Office is located on the 3rd Floor of Cass Business School, 106 Bunhill Row, London EC1Y 8TZ. Your Course Officer is accessible via email and telephone, should you be unable to visit the office in person.

Please note the following hours of operation for the Course Office:

**Term Time Hours**
Monday: 1pm – 6.30pm  
Tuesday: 1pm – 8pm  
Wednesday: 1pm – 6:30pm  
Thursday: 1pm – 8pm  
Friday: 10.30am – 3.30pm

**Out of Term Time Hours**
Monday to Thursday 1pm – 5pm  
Friday 10.30am – 3.30pm

**Virtual Learning Environment - Moodle**

The Virtual Learning Environment for Cass and City University, Moodle, provides a variety of information and resources to students. This includes the following:

- Lecturer contact details
- Course office contact details
- Module outlines and course material
- Teaching and exam timetables
- Course calendar, including events and module deadlines

It also provides students with the facility to:

- Submit coursework
- Receive coursework grades
- Manage your profile and communicate with classmates

Students are responsible for regularly checking both their City email account and their Moodle account. This is how both course office staff and academics will communicate with you.

In the event that a class is cancelled you will be notified via Moodle and email. We understand that you have a busy schedule and do not want to travel to Cass if it is not necessary.
Personal Tutors

Postgraduate taught students will be assigned a personal tutor. This personal tutor will be available to provide general academic, professional and pastoral support and will also ensure that a student is aware of the additional and more specialised support mechanisms available within the University. Students should have the opportunity to see their personal tutor on an individual basis at least once a term. Students will be assigned a personal tutor at the beginning of the year. Our course office team are also available to assist should you need help during the course of your studies.

Contact Details

In addition to their main teaching responsibilities, academic staff engage in research, University administration and external work. As a result of their varying duties, staff members may not be able to see you without an appointment. If the matter you wish to raise is urgent, you would make this clear when making the appointment.

All members of the academic staff are located on the 5th Floor of the Business School, towards the back of the building.

You may like to note that the University's main switchboard number is 020 7040 5060, but members of staff have telephone extensions which may be dialled direct with the prefix - 020 7040, these are listed below.

Dr Nick Motson, Course Director, MSc Finance and Investment, 4074, n.e.motson@city.ac.uk

Lenka Havlikova, Course Officer MSc Finance and Investment 5294, Lenka.Havlikova.1@city.ac.uk

Dr Lorenzo Trapani 5260, L.Trapani@city.ac.uk

Dr Natasha Todorovic 0120, N.Todorovic@city.ac.uk

Dr Sotiris Staikouras 0165, S.Staikouras@city.ac.uk

Professor Keith Cuthbertson 5170, k.cuthbertson@city.ac.uk

Mr Edgar Miller
Visiting Lecturer--please contact the Course Office

MSc Course Office:
Telephone, 020 7040 5187
Fax, 020 7040 8853
Programme Disclaimer

The information in this Specialist Masters Programme Handbook is correct at the time of going to press in August 2011. The University reserves the right to make amendments to:

a) the contents of the Programme Handbook and in particular to the timetable, location and methods of delivery or the content, syllabus and assessment of any of its programmes as set out in the programme and module specifications in this Handbook and/or on the University's website; and

b) its statutes, ordinances, regulations, policies, procedures and fee structures,

provided that such amendments are (i) as a result of student demand (or lack thereof), (ii) as a result of unforeseen events or circumstances beyond the University's control or (iii) are deemed reasonably necessary by the University.

In the event that amendments are made, the University shall take reasonable steps to notify you as soon as is reasonably possible.