牛津大学金融经济学硕士项目介绍

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一、项目基本情况

牛津大学金融经济学硕士项目（Master of Science in Financial Economics， 简称MFE）是一个1年期的硕士项目，旨在为投资银行、资产管理公司等金融机构培养掌握金融经济学分析工具的专门人才。这一项目将学术理论与实践应用有机地结合在一起。课程设置均是与世界领先的金融机构咨询后设计的。因此，自2005年牛津大学设立这一项目后，这一项目就备受市场好评。英国《金融时报》将这一项目列为欧洲排名第一的金融硕士项目。大多数学生毕业后都在知名投资银行、金融咨询公司等金融机构就业。

MFE 项目由牛津大学萨义德商学院（Said Business School）和牛津大学经济系共同教授管理。牛津大学萨义德商学院在欧洲一直享有盛誉，它也是注册金融分析师教育项目的创始机构之一。MFE课程涵盖70%以上注册金融分析师考试的内容，主要包括四门核心课程。四门核心课程分别是金融、资产定价、金融计量经济学和微观经济学，选修课程主要有私募基金、公司定价、资本募集技术、金融风险管理等，参见下表：

课程类别	课程名称
预备课程	会计学原理、金融数学
必修课程	公司金融、资产定价、金融计量经济学、微观经济学
选修课程	公司定价、私募基金、金融风险管理、固定收益产品与衍生产品、套利机会与对冲基金、公司治理、资金募集技术、连续时间金融、高级金融计量学、交易与市场微观结构、资产重组与管理、公司政策与市场竞争、企业金融、金融史、宏观经济学、税收、金融与公司战略

另外，牛津大学实行学院制管理。除所学专业院系外，学生还属于某一学院。例如默顿学院（Merton College），该学院是牛津大学最古老的三所学院之一，建于1264年。学院主要负责管理学生的社会活动、学术活动及住宿与就餐等事项。

二、课程情况

英国学制1年分为3个学期，在第1、2学期，主要学习预备课程和必修课程。第3学期主要学习选修课程。四门必修课程基本涵盖了金融专业必备的理论基础。主要学习内容是：

1、公司金融：课程包括了公司金融的主要理论，并将其应用于实务领域。主要包括:资

产定价模型、MM 理论、资本结构理论、公司定价、信息、控制权与代理问题、信贷配给、最优合约设计、风险投资合约设计、信贷风险转移、风险管理及投资银行理论。

2、资产定价：课程一方面涵盖了资产定价的若干理论，另一方面提供了运用可计算定价模型分析和对现代金融工具进行定价的实证研究，有助于掌握掉期、抵押资产证券化等定价技术。课程分为两个模块，即理论模块与实证模块。理论部分包括：基于套利和市场均衡的定价模型；多期资产市场套利与定价；期权定价理论和利率的期限结构理论；非对称信息与不完全资产市场。实证部分包括：对资产定价模型（CAPM）和证券市场线进行时间序列和横截面实证检验，并对检验结果进行分析；资产配置的实证研究；对多因素模型与条件期望下的资产定价模型进行估计研究，并分析证券市场的异常性（Anomalies）；定义并检验证券市场的可预测性（Predictability）；运用动态股利现金流折现模型对现值与收益进行分解；运用动态贴现因子（Stochastic Discount Factor）与消费资产定价模型（The Consumption CAPM）分析资产价格与宏观经济；分析市场微观结构的“噪声”（Noise）；债券及期限结构模型实证等内容。

3、金融计量经济学：这一课程提供了现代金融计量经济学实证研究的基本技术。主要包括：概率理论与资本市场风险测度；贝叶斯理论与证券市场组合的条件分布；资产价格数据模拟；价格过程（包括随机过程、鞅过程（Martingales）、二叉树、布朗运动等）；估计与假设检验（最大似然法与矩估计）；回归理论；时间序列模型（平稳、非平稳、自回归、向量自回归与协整）；面板数据模型；广义矩估计及应用（因素模型）；估计、推断与检验，模型及在资产定价中的应用；波动性（随机波动与实现波动（realized Volatility）,体现资产波动的资产定价模型及 ARCH 模型系列；在险价值(Value at Risk)(预期损失及密度分布预测)

4、微观经济学：主要目标介绍现代微观经济学的核心理论，阐释市场经济学的优势与缺点，突出竞争战略的基本原则，探求合约设计机制以弥补“市场失灵”。为学生提供作为经济学家必备的微观经济学工具。课程主要涵盖以下四个领域：古典微观经济学理论；博弈论；非对称信息与契约理论；激励理论与产业组织理论。

选修课程则主要与投资银行、资产管理公司等金融机构的业务紧密结合在一起，大量以案例教学为主，并邀请了许多在知名金融机构从事实务工作的专家学者来讲授部分课程。如私募基金一课，一部分由牛津大学教授主讲，另一部分由英国著名私募基金 Advent International 的合伙人主讲，每课都配有实际案例剖析。而公司定价一课，一部分由美国弗吉利亚大学达顿（Darden）商学院访问教授主讲，另一部分则由麦肯锡公司合伙人，《公司定价》一书合作者 Richard Dobbs 主讲。资本募集技术一课则主要是由各大投资银行固定收益部、资本市场部、股权市场部等相关业务部门的资深专家主讲。另外，高盛公司、摩根斯坦利、瑞士银行、雷曼兄弟、麦肯锡公司等高管及部门总经理都给学生讲授了部分课程内容，并让学生参与了他们正在进行的部分项目工作。

此外，商学院还定期邀请各大金融机构、政府经济部门的高层专家到学校举办专题讲座，与学生交流。内容涉及金融经济的各个领域，包括对冲基金的策略研究、英格兰银行货币政策、欧洲次级抵押债券市场发展、另类投资的发展、公司治理的变化趋势等等。

附录——牛津大学 MFE（Master in Financial Economics）项目介绍（英文版）

1．必修课：

corporate finance,

asset pricing,

financial econometrics

economics.

2. 选修课：

Advanced financial econometrics

Capital raising techniques

Continuous time finance

Corporate valuation

Entrepreneurial finance

Fixed income and derivatives

Lessons from financial history

Private equity

Mergers, acquisitions and restructuring

Financial risk Management

Taxation, finance and business strategy

Trading and market microstructure

Please note that the elective courses offered are subject to change.

课程具体介绍：

Asset Pricing

The asset pricing course covers the theory and practice of valuing claims to uncertain cash flows; for example, stocks and stock options, bonds and foreign-exchange instruments. The course covers standard material such as CAPM and the Black-Scholes formula, and some advanced material such as consumption-CAPM and pricing formulas for "exotic options". About half of the course is dedicated to the application of advanced statistical methods to the area of asset pricing and to practical work with real-world data.

Corporate Finance

Corporate finance studies the financing, valuation and corporate governance of firms. During this course, you will learn the fundamental principles of financial accounting, the valuation of firms' assets and the determinants of firms' financial structures. You will be taught the key components of firms' financial decisions and the operation of financial markets, including new issues of securities, debt and dividend policy. You will learn about the relevance of different financial institutions to the financing of firms, the takeover process, corporate restructurings and financial distress.

Financial Econometrics

The course in financial econometrics provides students with a background in the fundamentals of empirical modelling and testing in finance. This will allow you to better understand crucial concepts like risk, evidence and prediction.

Economics

Microeconomics is the study of how financial and commercial frameworks and conditions impact on individual situations and business units. During this course you will learn to apply the basic tools of market and firm analysis, game theory, incentive theory and auctions. In addition, the course will provide an introduction to fundamental ideas in macroeconomics, reinforced by lectures from leading policy experts.

Advanced Financial Econometrics

Advanced Financial Econometrics (Part I) builds on the core econometrics course. The course is topical and presents cutting edge research on a variety of active research areas. Topics for 2007 include multivariate GARCH and copulas, the econometrics of option prices, Bayesian statistics in finance and advanced forecast evaluation.

Advanced Financial Econometrics (Part II) also builds on the core econometrics course to develop the theory and practice of econometric modelling and forecasting in an evolving world. The central themes are automatic methods of selecting empirical econometric models combined with robust procedures for using such models in forecasting: computer sessions will implement the theory in practice.

Capital Raising Techniques

The course aims and objectives are:

Understand the primary capital markets for equity, corporate and government debt and intermediate finance including equity-linked, mezzanine and high-yield. The roles of participants, offer structures and techniques, incentives and conflicts of interest will be analyzed.

Master the workings of the primary equity markets. Equity offering types are explained, including initial public offerings (IPOs), seasoned offerings, block trades, convertibles and other equity-linked securities. Participants will, through the assessed group exercise, take part in a simulated ‘beauty-contest’ for an IPO mandate.

Use the analysis of the primary markets to inform participants’ understanding of key finance theories including asymmetric information, information revelation, principal-agent models, under pricing and long-run underperformance.

Continuous Time Finance

The course aims:

To provide an introduction to arbitrage theory in continuous time and in particular to pricing and hedging theory for financial derivatives.

To introduce the main mathematical tools: stochastic differential equations and Ito calculus.

Preparatory math course: 6 hours of measure theory prior to the beginning of the course, compulsory.

First part of the course: Foundations of continuous-time modeling.

Second part of the course: Application of these tools in developing the standard complete markets model, models of forwards, futures and other derivatives, and portfolio choice problems.

Corporate Valuation

Managers of firms have many responsibilities. A critical one is to ensure that the firm makes appropriate investment and financial decisions. This course focuses on how to make good decisions. While this course will focus to some extent on the mechanics of corporate valuation, it is more directly a course on how to create (and destroy) corporate value. As such, I am more interested in the decisions you make after you have conducted the valuation analysis. Who should take this class? Consultants, entrepreneurs, general managers, marketers, investment bankers and other finance professionals—basically, if you're interested in business, you should take this class.

Entrepreneurial Finance

The Entrepreneurial Finance elective aims to help future executives, facing financing and investment decisions in a broad range of entrepreneurial environments, to make better decisions and achieve better outcomes. The course covers all stages of the financing process from initial financial planning to harvesting value. While the course will inevitably involve looking at a number of technology driven businesses the emphasis is on gaining insights into the entrepreneurial financing process rather than looking at the financing of technology businesses per se. Entrepreneurial environments considered will include not just young, growing, independent businesses but also those around the buy-outs and spin-outs of units from more established businesses as well as entrepreneurial joint ventures that are established with a view to their becoming independently viable entrepreneurial businesses in their own right.

One of the eight sessions will also be devoted to looking at the venture capital industry with a view to providing candidates with a broad understanding of current developments in this area and the likely future impact on the range of financing options and alternatives available from these sources going forward.

The course requires candidates to be very comfortable with and confident in using basic financial concepts. The course is designed to focus on the numbers and analytic techniques for gaining insight, although continual attention will also be paid to the incentives facing each of the parties in the financing process.

The course will be highly relevant for future executives who may be involved in an entrepreneurial venture at some point in their careers, whether in a turnaround, a management buy-out, a young company or a start-up. The course will also be highly applicable for future private equity and venture capital decision makers.

Fixed income and Derivatives

The course will develop the analytical tools necessary to understand and price fixed income and derivatives financial instruments. The properties of these financial instruments will be analysed and related to risk management, portfolio diversification, systemic risk, financial fragility and contagion. Emphasis will be put on applying these techniques on problems emerging in the marketplace.

Topics to be covered include: bond valuation, properties and trading; swaps; risky debt; fixed income and hedging applications; the yield curve; derivatives markets; properties and trading; derivatives pricing and hedging applications; Black-Scholes Model; real options, credit derivatives and securitisation, credit derivatives and financial stability.

Lessons from Financial History

The aims of the course are to:

Give the student an understanding as to why finance matters;

Provide the student with a historical perspective on some aspects of modern capital markets;

Facilitate the student with the opportunity to study as part of a group the historical dimension of a particular aspect of finance, or a particular financial system, which is of personal interest, and/or of relevance to a future career.

Private Equity

Throughout the year there are many different seminars, events and conferences involving private equity professionals and those faculty researching in the area. These provide a useful introduction to the sector, and essential background knowledge for students taking the private equity course.

There are three main objectives of the private equity course:

To develop an understanding of the roles played by the various participants involved in private equity.

• The course will consider the attractions of private equity as an investment class.

• The organization and incentive structures of private equity funds, and the complex relationship with the companies in which they invest are also analyzed.

To apply many of the ideas and theories developed in the core finance courses to a particular sector of the financial industry. The private equity sector – involving both venture capital and buy-outs – is a particularly interesting sector to analyze. Private equity is used to finance many companies where the generic problems encountered when financing companies – such as uncertainty or asymmetric information – are especially acute and complex.

To critically evaluate the valuation techniques employed in private equity transactions. By their very nature, private equity investments (which lack market valuations provided by public equity markets) are those where valuation is often difficult, being highly sensitive to assumptions

and methodology. This course reviews a variety of valuation techniques in the context of real private equity transactions.

Mergers, acquisitions and restructuring

The market for corporate ownership is one of the hallmarks of capitalism. Within that market, vast amounts of corporate wealth have been created – and destroyed. The objective of this course is to understand the market, the institutions that were created in order to execute these complicated transactions and the strategies that are employed by the major players.

One role of the market is to allocate assets to the owners who can extract the maximum value out of them; bankruptcy is an alternative mechanism. Hence, the two mechanisms are often studied together under the heading of restructuring.

The first four sessions are taught by Oren Sussman and would focus on finance. Subsequently, Duncan Angwin will teach four additional sessions that would focus on Strategy and Organisational Behaviour.

Financial Risk Management

In this course, we will develop the necessary tools to provide an answer to the following question: How are risks quantified and managed by financial institutions? The topics covered will include regulatory capital and lessons from experience; volatility, correlation and copulas; Market VaR; approaches to computing VaR; credit risk, default probabilities; credit VaR, credit derivatives; operational risk, model risk and liquidity risk; economic capital.

Taxation, Finance and Business Strategy

Unbeknown to many, taxes absorb over 50% of businesses' cash flows making governments the single largest stakeholders in most companies. Having a basic understanding of taxation and how it influences decision making is accordingly important for just about any career path: auditor, CFO, treasurer, controller, HR manager, head-hunter, entrepreneur, family-owned business, investment banker, corporate attorney, or venture capitalist. Taxes are pervasive and it pays to have some understanding of them.

The course intends to provide a framework for recognizing the implications of tax factors on corporate decisions, investigating tax planning opportunities and making use of basic principles of tax strategy throughout a business's life cycle. While the course draws on individual cases drawn form a number of countries, there is no focus on detailed nation specific rules.

This conceptual framework has a number of key elements:

ALL PARTIES: Effective tax planning requires that the tax implications of a proposed course of action be investigated from the standpoint of all parties involved. In many cases, differences in tax status across parties create tax arbitrage opportunities.

ALL TAXES: Effective tax planning requires considering both explicit taxes (taxes paid directly to the government) and implicit taxes (taxes paid indirectly in the form of lower before-tax

rates of return on tax-favored investments).

ALL COSTS: Effective tax planning requires the planner to recognize that taxes represent only one among many business costs, and all costs must be considered in the planning process.

A recurring theme will be linking the tax strategies with concepts from corporate finance, financial accounting, business law, and economics. We make extensive use of case studies and real-life illustrations to illustrate the impact of tax structure on earnings and cash flow.

Trading and Market Microstructure

Three main objectives:

Practise trading in simulated financial markets;

Understand the mechanics of the international financial markets in general;

Understand some of the theories and controversies associated with financial markets trading.

An Introduction to Oxford University's Master of Science in Financial Economics

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