

Postgraduate Degrees in Finance

Department of Finance, Real Estate, and Insurance

(I) Master of Business Administration (MBA)

Introduction

The demand for the MBA degree has increased significantly over the past three decades, because of its flexibility in catering to one's career direction and the need by companies for staff with in-depth business acumen in an ever more sophisticated business environment.

An MBA program usually consists of two parts. The first part exposes students to a variety of core business-related subjects, e.g., accounting, finance, marketing, organizational behavior, etc, through a combination of lectures, case studies, and group work. This is especially useful for students from non-business backgrounds, e.g., engineering. The second part consists of electives. Depending on the student's preference, the MBA degree could be tailored for a generalist or a specialist. A generalist would choose a broad range of subjects whereas a specialist would concentrate on a particular discipline (e.g., finance).

MBA programs usually come in three forms:

- **Full-time MBA:** For full-time students only.
- **Part-time MBA:** For students who work full-time while taking classes in the evenings.
- **Executive MBA (EMBA):** Tend to be for managers and executives with ample higher level work experience.

Joint/Dual Degree

Joint/dual degrees are offered jointly, either between different departments of a university or between different universities. Applicants who would like to pursue a joint/dual degree would have to gain admission into both departments/universities. Examples of joint/dual degrees are:

- MBA / Master of Science in Mathematics in Finance offered by New York University.
- MBA / Master of Arts in International Management offered by University of Pennsylvania.
- Juris Doctorate / MBA offered by Northwestern University.
- MBA from the Tuck School of Business (Dartmouth College) and a Master in Public Administration from the John F. Kennedy School of Government (Harvard University).

Duration of Study

Most full-time MBA programs in the U.S. last for two academic years. However, there are some U.S. universities that offer one-year programs; examples are Northwestern University, the University of Pittsburgh. Most universities in the U.K./Asia offer a one-year full-time MBA program. The duration of study for the part-time MBA and the EMBA programs in the U.S. are about three years and two years respectively.

Admissions

Pre-requisites include an undergraduate degree of any discipline, results from standardized tests, e.g., the Graduate Management Admission Test (GMAT) and/or the Test of English as a Foreign Language (TOEFL) for applicants whose degrees are not from institutions where the official language of instruction is English. The application process would also require letters of recommendation, essays, and a personal interview.

Depending on the university, work experience may be required. Although, in recent years, it appears many U.S. universities do not require post-collegiate work experience for their full-time MBA program, the middle 80% of their incoming class tend to have minimum work experience of three years. (Some U.S. programs that do not require work experience, to name a few, are Carnegie Mellon University, the University of Chicago, and Stanford University.) Most MBA programs in Europe/Asia require work experience; examples are the University of Manchester, China Europe International Business School, Hong Kong University of Science and Technology. As a result, students of MBA programs in Europe/Asia tend to have more work experience than their U.S. counterparts; for example, at IMD in Switzerland, the average work experience for the entering class in 2008/2009 was 7.25 years. EMBA programs prefer students with more than 10 years of working experience.

Financial Aid

In most U.S. and non-U.S. universities, scholarships are not offered. Financial aid may be available for U.S. citizens and permanent residents studying in U.S. universities.

Accreditation

The main accreditation agency in the U.S. is the Association to Advance Collegiate Schools of Business (AACSB), which also assesses business schools outside the U.S.; non-U.S. accreditation agencies include the Association of MBAs (AMBA) and the European Quality Improvement System (EQUIS).

Career

There is wide range of career choices for an MBA degree holder. For example, if one's choice is to work in the financial industry, then a student should choose finance subjects as electives. However, if a student would like to pursue a career as a management consultant, then studying a wide variety of subjects may be appropriate.

Resources

<http://www.ft.com/businesseducation>

<http://www.topuniversities.com/gradschool>

<http://www.businessweek.com/bschools/>

<http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools>

<http://www.economist.com/businessfinance/businesseducation/>

<http://www.forbes.com/education/>

http://en.wikipedia.org/wiki/Master_of_Business_Administration#MBA_accreditation_agencies

(II) Master of Science in Finance (MSF)

Introduction

The MSF is a specialist degree in finance and caters to students who intend on pursuing a career in the financial industry. It is more focused in nature than the MBA degree but not as narrow in scope as the MS in financial mathematics (see Section III). In the U.S., there are limited choices for the MSF, especially from renowned universities. Almost all universities in Europe/Asia offer the MSF degree.

Duration of Study

Most MSF programs last for one academic year. Exceptions would be the University of Melbourne's two-year MSF and London Business School's 10-month full time MSF program.

Admissions

Pre-requisites include an undergraduate degree of any discipline, results from standardized tests, e.g., GMAT and/or TOEFL for applicants whose degrees are not from institutions where the official language of instruction is English. The application process would also require letters of recommendation and a statement of purpose. Depending on the university, work experience may be required. (For example, London Business School requires at least two years of relevant work experience.) Most universities do not require work experience.

Financial Aid

In most U.S. and non-U.S. universities, scholarships are not offered. Financial aid may be available for U.S. citizens and permanent residents studying in U.S. universities.

Career

The MSF is a specialist degree, covering subjects from financial statement analysis to derivatives. As such, the career choices for a MSF graduate are rather broad, covering almost all job description in the financial industry.

Alternatives

Variations of the MSF degree would be the MS in Applied Finance (e.g., Pepperdine University), MS in Finance and Economics (e.g., London School of Economics), Master of Financial Analysis (e.g., University of New South Wales), Master of Commerce (University of Adelaide), etc. The aforementioned programs tend to be by coursework. Another variation is by research (i.e., the completion of a thesis), typically called the Master of Philosophy (MPhil). Students who take this avenue intend on pursuing a doctoral degree. An example of such a program is that offered by the University of Cambridge.

It is important to study the curriculum of each program as some universities may have a MSF program in name but in substance is a MS in financial mathematics. Examples are the MSF programs offered by Imperial College and Princeton University.

Resources

<http://rankings.ft.com/businessschoolrankings/masters-in-finance>

<http://www.topuniversities.com/gradschool>

http://www.global-derivatives.com/index.php?option=com_content&task=view&id=55

<http://www.bus.lsu.edu/academics/finance/faculty/dchance/MiscProf/MP.htm>

http://en.wikipedia.org/wiki/Master_of_Finance

(III) Master of Science in Financial Mathematics (MSFM) / Financial Engineering / Mathematical Finance / Computational Finance

Introduction

The MSFM gained traction in the mid-1990s, to meet the needs of the financial industry for professionals with in-depth quantitative skills. It is more specialized than the MBA and the MSF. Many universities, both U.S. and non-U.S., offer this program.

Duration of Study

Most full-time MSFM programs last for one academic year. An exception would be Carnegie Mellon University's MS in Computational Finance, which lasts for 16 months.

Admissions

Pre-requisites include an undergraduate degree in a quantitative discipline (e.g., engineering, mathematics, physics, computer science), results from standardized tests, e.g., the Graduate Record Examinations (GRE) General Test (and at times, the Mathematics Subject Tests) and/or TOEFL for applicants whose degrees are not from institutions where the official language of instruction is English. The application process would also require letters of recommendation and a statement of purpose. Usually, no work experience is required.

Interdisciplinary

The MSFM is an interdisciplinary degree and is usually taught by faculty from different departments (e.g., engineering, mathematics, statistics, business, economics). For example, the University of Chicago's MSFM degree is in collaboration with the mathematics, statistics, and economics departments, whereas UC Berkeley's Masters in Financial Engineering program is taught by the Haas Business School faculty. Adjunct faculty members comprise those from industry.

Financial Aid

In most U.S. and non-U.S. universities, scholarships are not offered. Financial aid may be available for U.S. citizens and permanent residents studying in U.S. universities.

Career

The MSFM degree is by coursework and graduates tend to pursue a career in industry. As the degree is very specialized in nature, MSFM graduates lean toward finance jobs that are quantitative in nature (e.g., programmers, quantitative traders, structured products).

Resources

<http://rankings.ft.com/businessschoolrankings/masters-in-finance>

http://www.global-derivatives.com/index.php?option=com_content&task=view&id=55

http://en.wikipedia.org/wiki/Master_of_Quantitative_Finance

(IV) Doctor of Philosophy (PhD) in Finance

Introduction

The PhD (or referred to as DPhil in some countries) in Finance degree represents the highest level of formal study in the field of finance. It is offered by all research universities with a finance program. Other universities may offer the Doctor of Business Administration in place of the PhD in Finance.

Duration of Study

In the U.S., the PhD program lasts for four/five years. The first two years are by coursework while the last two/three years are by research. In the U.K., usually a PhD program is by research only, which lasts for three years. Both programs culminate in a dissertation, whereby the PhD degree is conferred upon the successful defense of the dissertation.

Universities from other countries that mimic the U.S. model are, e.g., London Business School, INSEAD, and the National University of Singapore.

Admissions

For U.S. universities, pre-requisites include an undergraduate degree whereas in non-U.S. universities, pre-requisites may include a postgraduate degree. Other requirements include results from standardized tests, e.g., GMAT/GRE and/or TOEFL for applicants whose degrees are not from institutions where the official language of instruction is English. The application process would also require letters of recommendation and a statement of purpose. Usually, no work experience is required.

Financial Aid

In most cases, tuition and a stipend are provided by the university in exchange for services—research/teaching assistantship—provided by the doctoral student.

Career

PhD holders tend to pursue a career in research, either in academe, government or industry. With the sophistication of certain financial instruments, PhD holders are in increasing demand for their quantitative skills in the financial industry.

Resources

<http://www.topuniversities.com/gradschool>

<http://www.businessdoctoralprograms.org/>

http://www.global-derivatives.com/index.php?option=com_content&task=view&id=54

<http://www.bus.lsu.edu/academics/finance/faculty/dchance/MiscProf/MP.htm>

http://en.wikipedia.org/wiki/Doctor_of_Philosophy