



A Study of American Finance Master Students Educational System

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This paper is part of the achievement of The Major Project of Shandong Master Students Education Innovation Program (sdyz06007).

Abstract

The Analysis of American Finance Master students' courses will be helpful for the construction of relevant majors in developing countries. This paper analyzed systematically Finance Master students courses at major American universities and drew conclusions that American courses carry features of being both flexible and practical, both complete and novel, and both theoretical and empirical. This paper also studied the whole courses system in detail by observing the actual teaching situation of different courses.

Keywords: American, Finance, Master students, Courses

1. Introduction

In America, the concept of the word "finance" is quite narrow. It mainly refers to areas that are related to the capital market and corporate financing. Accordingly, the American finance courses at universities mainly cover knowledge about the capital market and enterprises. The Finance Departments at many universities are in the business schools.

Unlike many other countries, American universities usually do not require master's degrees when they set their doctoral students enrollment prerequisites. That is to say, after graduation, American undergraduate students may choose to go to work, to continue their education as master students, or to apply directly for doctoral education. Of course, master students can also seek to get doctoral degrees. Undergraduates and master students may choose their optional courses according to their aims of where they plan to go in the future (Raelin & Schermerhorn, 1994). Those students who aim at doctoral degrees will choose more theoretical courses. Those who aim at practical jobs will choose more practical courses.

We analyzed master students educational system at about thirty American universities of all levels. There are different names for similar financial majors. We summarized them and made some comparisons. The courses set at different universities may differ because different universities may have professors who are good at their special fields. Here we made a general analysis of the whole situation.

2. Closely related master majors relevant to finance in the United States

One major feature of the construction of American master majors relevant to finance is that they are set delicately. The commonly used term "Master in Finance (M.Fin.) is in fact the abbreviation of either "Master of Arts in Finance (M.A.F.)" or "Master of Science in Finance (M.S.F.)". There are many closely related majors, such as Masters in Financial Engineering (MFE), Masters in Financial Mathematics, Master in Financial Economics, Master of Finance and Economics. Some majors have some distinct differences. Some only have minor differences. Some have none. The following will be comparisons between them.

2.1 The differences between M.A.F. and M.S.F.

By its name, we may tell that M.S.F. may have more science courses than M.A.F.. The two in fact have only minor differences in courses. The professors of these two majors present with master students very similar lectures. M.A.F. also gives a lot of attention to mathematical tools training. The students of both majors all seek generally such jobs as financial analysis, investment portfolio and corporate finance.

Both of these two majors require students to have taken undergraduate courses of Finance, Accounting, Statistics, Econometrics and economics.

Both majors have such more advanced courses as Investment Theory and Practice, Portfolio, Financial Modeling, Corporate Finance, Mergers and Acquisitions, Financial Management, Fixed Income Securities, Financial Derivatives, and Credit Risk Management. Students are not required to take all the courses. They may choose some according to their interests. Some supplementary courses include Corporate Governance, Corporate Culture and Corporate Strategies.

2.2 The differences between M.Fin. and Finance concentration in M.B.A. or M.B.A. in Finance

During recent years, financial areas in the U.S. keep recruiting a lot of M.B.A. students. Some M.B.A. majors pay a lot of attention to courses related to finance. A major of Finance concentration in M.B.A. or M.B.A. in Finance have very similar courses to M.Fin.'s. At some universities, most of the courses are identical, with only minor different stresses on some finance areas or management areas (Connolly, 2003). M.Fin. majors offer wider and deeper knowledge in finance, while some M.B.A. majors offer more knowledge in management (Collett, 2000).

At many universities, the major of Finance concentration in M.B.A. or M.B.A. in Finance also offer courses like Investment Theories, Corporate Finance, Fixed Income Securities, and Mergers and Acquisitions. The university might turn the major of Finance concentration in M.B.A. or M.B.A. in Finance into an M.Fin. If it has more finance professors and if it estimates that there will be enough students (Goldgehn & Kathleen, 1997).

Generally, M.B.A. majors require some working experiences and GMAT scores. But M.Fin. majors often do not have the working experiences requirement, and have either GMAT or GRE scores requirement.

2.3 The differences between M. Fin., MFE and Master in Financial Mathematics

The rapid development of services concerning financial derivatives, risk management and portfolio management in recent years make the mathematical content increase in financial courses, and make application mathematics be used more directly in financial fields. Financial engineering and financial mathematics develop rapidly, too.

Mathematics departments of many universities have majors of MFE or Masters in Financial Mathematics. Sometimes other similar names of these majors are given, for example, The Master of Science in Quantitative Finance, or Computational Finance. And some mathematics departments cooperate with finance departments in running these majors.

Compared to the major of Master of Science in Finance which presents many courses closely related to mathematics, MFE or Master in Financial Mathematics applies mathematics in finance apply more mathematics. The latter two are almost branches of mathematics. They offer courses like the Random Process, Financial Tools, Financial Modeling, Asset Pricing, Econometrics, Simulation, Optimization Methods, and Time Series Analysis. Many of these courses or the content of these courses do not appear in the courses of Master of Science in Finance. Sometimes Master of Science in Finance offers some similar courses. But those courses differ in the level of mathematics from those offered by majors of MFE or Master in Financial Mathematics.

2.4 The differences between M. Fin., Master in Financial Economics and Master of Finance and Economics

Compared to M.Fin., the majors of Master in Financial Economics and Master of Finance and Economics emphasize more on courses related to economics and understanding about financial issues based on economic thoughts. The latter two have courses like Financial Economics and Managerial Economics.

In addition, Master in Financial economics and Master of Finance and economics, especially the latter, pay more attention to the courses of financial theories and economic principles although situations may differ slightly in different universities. These two majors focus more on using economic theories in the analysis of issues such as the capital market, the market micro-structure, uncertainty, irrational behavior of investors and foreign exchange rates. One of their main objectives is to train students who will choose to pursue Ph.D. education in Finance or Economics.

3. Features of courses of majors of Master in Finance in the U.S.

The majors of M.A.F., M.S.F. and Finance concentration in M.B.A. or M.B.A. in Finance offer quite similar courses (For simplicity, we use M.Fin. to refer to all these majors). Based on courses of these majors, we drew some distinct common features.

3.1 Most of the courses are quite practical.

The U.S. universities present quite practical courses to students of M.Fin.. The arrangement of courses in American universities is very market-oriented. If there are not enough applicants in one major, this major will usually be cancelled, which has become an external restriction to the courses that the major offers.

3.1.1 Being practical

Most universities in the U.S. pay great attention to arranging practical courses for M.Fin. students. In many programs, universities consider first the fierce competition in the job market and provide to students the knowledge and skills which they may need for their future jobs. Some universities even consider about the students future job choices, for example, investment banks, brokers, consulting firms, private equity or other financial institutes.

3.1.2 Providing students with professional experiences

Some universities have courses like Lectures on Financial Practice. Professors lecture on financial market changes, financial products and big financial events.

Besides, in order to improve students' understanding of the actual world, some universities employ practitioners in the financial industry to give part-time lectures to students.

Meanwhile, universities pay much attention to opportunities of internship. Some universities have set up specialized positions like Career Services Team or Career Advisor, and help students to look for internship opportunities.

Some universities have raised funds for students to practice actual investments. Some universities even employ some fund managers to guide the students' investment activities.

Many universities have various kinds of finance clubs and other student's organizations, by becoming members of which students may get access to practices.

3.1.3 Providing optional professional qualification examination training courses

Some universities' courses relate directly to the contents of professional qualification examinations. For instance, some universities design their courses according to the Chartered Financial Analyst examination.

3.1.4 Graduation requirement for students

Most universities require students to submit practice reports instead of requiring students to write graduation theses. Some majors which pay much attention to theories may require students to write graduation theses.

3.2 Laying emphasis on empirical methods training

In the U.S., M.Fin. programs lay great emphasis on empirical methods training. In many courses, lots of empirical study tools are discussed. The basic course is econometrics applied in finance. Some other courses can statistics and mathematics for finance.

In addition, many universities require students to have adequate mathematics background before their enrollment. Some universities set minimum scores for applicants' GMAT or GRE and judge the quantitative analysis capabilities of applicants from their GMAT or GRE scores.

3.3 Program Flexibility

3.3.1 Flexible schedules

According to students' needs and universities' requirements, the duration at universities of M.Fin. students can be one year, 18 months or two years.

For one-year programs, students can apply for postponing their graduation if they want to study for a longer period of time.

Different universities may have different time in starting their schedules. Some universities require students to register in the fall semester while others require to enroll in spring. And some universities allow students to choose either semester.

Given the condition of the students with full-time jobs, some universities offer two schedules. One is a full-time program. The other is a part-time program. The courses can be from Monday to Friday, or at weekends.

3.3.2 Full use of the Internet

Many universities adopt teaching method which can combine online teaching and traditional offline teaching. Therefore, students may have some online courses. As to the traditional offline courses, the internet is also prevalently used. The academic calendars, PowerPoint files, reference materials and assignments can all be provided through the internet. In order to communicate conveniently, some universities require students to attend their class with their laptops.

3.3.3 Courses arranged for students with different education backgrounds

Some master students have work experience while others do not. Some students' majored in Finance before their enrollments while others did not. In accordance with these situations, some universities provide comparably entire basic-knowledge courses or suggest students select other department courses which will be needed for further study. According to the students' different backgrounds, the credits for graduation in this program vary. Students who need to attend to basic-knowledge courses will certainly need to complete more credits.

3.4 Courses tightly arranged

The courses are tight since there are so many courses. Moreover, the lecturing hours for each course are limited and the contents of the course are wide. Sometimes professors can only touch the most important main points of the courses. Therefore, students need to spend much time on digesting the lecture contents and reading a large number of materials after classes.

3.5 Courses with wide-ranged and novel contents

Study in Finance requires students to have wide-ranged knowledge, including mathematics, statistics, management and economics. Usually students need to select required courses from departments other than the finance department. Top universities can provide students with courses with no knowledge gap from undergraduate study to graduate study. All courses needed by students with different knowledge backgrounds and levels are available. In this case, students may not feel that it is beyond their capability to finish some courses.

Some universities list some prerequisite courses for students before they are admitted to this program. For instance, universities will require students to have several credits on macroeconomics, microeconomics, mathematics, statistics, finance and accounting during their undergraduate or graduate study. The aim for requiring students to complete these prerequisite courses is to make students to have a better basis for advanced master study in finance.

The course combines updated results in theory and latest cases in practice in order to pursue the theory frontier and foresight in reality. In certain, its level is less deep than the one of Ph.D. courses. However, this kind of program provides a good knowledge basis for students who prefer to pursue Ph.D. education in finance in the future and also shows the reality to students who prefer to go to work after graduation.

4. Summary

There are many closely related master majors in the field of finance in America. Their programs vary slightly from one to another. The advantage of the differentiation of closely related majors is that professors with different study of interests may enjoy teaching their favorite courses and students may have plenty of choices according to their different knowledge backgrounds. So students may become good experts in one aspect in the field of finance. Universities have two main goals in their programs. One is to provide enough knowledge needed by students. The other to provide enough qualified graduates to the job market. These programs offer financial courses with distinct features of being both concentrated and complete, both flexible and tightly scheduled, and both practical and frontier cutting-edged.

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