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Core Finance Courses in the Top MBA Programs in 2001

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* I welcome comments, corrections, and recommendations for improving this and future analyses of this topic. I thank Thomas Crowley for research assistance and a host of other professors at the MBA schools listed herein who responded to my requests for syllabi and for checking the information on the spreadsheets. I especially acknowledge help and insights from Laurie Hodrick, Ivo Welch, and Susan Chaplinsky. The reader should understand that this analysis attempts to capture a snapshot of a moving target. Courses and requirements are continually changing, so that even if the results are or were correct recently as of fall 2001, they will certainly change as professors teaching those courses change and as the MBA programs make incremental changes and improvements. Even though I have attempted to verify all information received from the target schools, there are almost certainly some errors in this analysis that I will gladly correct in future versions if I am alerted to them. I regret that data from Indiana University were not easily incorporated into this analysis. Future versions will be republished on my website and the FEN website.

Introduction

Finance is a core discipline of business studies. This analysis and its accompanying spreadsheet [See Tables 1 and 2 at the end of the document] attempt to document the state of required finance coursework in 19 of the top 20 MBA programs according to the Business Week poll taken in 2000 and in 3 other international programs. Core requirements in general (usually taken in the first year of the traditional 2-year MBA program) are in a state of flux. At least two schools have abandoned “required” finance courses in favor of distributional requirements or alternatively using first-year courses as prerequisites for more advanced electives in the program. Other programs have rationalized or reduced core requirements, while at least one school has added a second required course in the first year.

Analyses of programs (like a finance curriculum) or of good decision-making techniques (that professors hope to engender) can often be separated into at least three distinct parts. First is the *descriptive* analysis, where the question and answer are simply “What does the world look like presently?” This analysis will focus primarily on that straight-forward answer with regard to MBA core finance courses. Second, and probably more important, is a *normative* analysis, which asks: “What *should* the world (or in this case, the core MBA finance agenda) look like?” That is, what is best or preferred? It should be clear that a unique answer will not emerge. In fact, it is certain that intelligent and well-meaning scholars will disagree. There are few pedagogical principles that share universal acceptance (although it would be interesting to contemplate and examine them).

Third, what various MBA programs will choose for a finance core agenda is intertwined with *cost-benefit tradeoffs* outside the finance faculty’s purview. Over the last decade, several programs among the top 20 have decided to allow more elective choice by students. Perhaps it is the realization that choice is popular among students. Alternatively it may stem from a more philosophical belief that students know what is best for their own careers and will choose appropriately. The reality of higher levels of choice in the MBA program has usually meant the elimination or shortening of core courses, even in core disciplines like finance.

This analysis will focus on the commonalities and differences in the core MBA requirements. The key issues to be examined in this document include time on task (the

number of hours required by the top programs), the topics that are common among most programs, the textbooks that are used, and finally, the ordering of the topics within the course.

While finance, according to most, is a sub-discipline of economics, the teaching of finance is rarely coordinated with instruction in economics in MBA schools. There are numerous potential explanations for this sharp dichotomy. Two of the most obvious reasons are the market for MBA professors and the natural distinctions in course topics. Professors are trained, recruited, and eventually promoted primarily in either economics or finance. While the topics of micro and macroeconomics have much overlap with finance topics, textbooks and course offerings remain fairly distinct. As core requirements have diminished in favor of offering students more individualized choice, there may be and perhaps should be some rethinking of that separation.

Time on Task

There is significant variance in time devoted to finance in the MBA required core. At the low end, there are a significant number of schools where the requirement is a one quarter course or a half-semester course with approximately 12 to 15 class meetings which typically equals 30 hours of class time or less. At the upper end of the distribution are the primarily case-based approaches at Harvard and Virginia where the number of sessions is 30 or more and hours in finance hours in class may approach 80. Five schools divide the core up into 2 separate courses, and naturally in these cases the total number of sessions is also usually greater than 30.

Likewise, the time per session is varied with the mode being 80 to 90 minutes for 19 of the 24 schools. Only at five of these top programs are session lengths greater than 90 minutes. An interesting but unanswered question is whether longer class session times were developed for the convenience of faculty or for improved pedagogy.

Textbooks, Topics, and the Ordering of Topics

What should be taught in the core MBA curriculum? The answer is not obvious and of course should differ depending on the ultimate goals of the programs, their students, and the careers in which the students are likely to be placed. On the other hand,

there is a set of core principles that should be taught. Roll (1994) sets out a thoughtful list of what every CFO should understand in his keynote address to the 1993 FMA Annual Meeting. Welch (2001) also provides interesting lists of finance achievements and unresolved puzzles. Chapter 35 of Brealey and Myers also gives a good exposition of “What We Do and Do Not Know About Finance”. Also of more practical import in each school's individual choice of topics is the coordination of the core course or courses with elective courses. Often the choice, emphasis, or time allocated to subjects within courses stems from a negotiation with colleagues in large or popular second year elective courses. For example, if the “standard” elective taken by many second year MBAs is “Valuation”, then the core may lessen its emphasis on that subject with the assumption that most students will take the popular elective.

The way that a course is structured and taught often is directly related to the textbook that is chosen. There are three textbooks that appear to dominate the MBA market. Two of them are general texts (Brealey and Myers (BM) & Ross, Westerfield and Jaffe (RWJ)) that cover both corporate and investments topics. More than 60% of the programs examined here use BM. RWJ is used by another 20%, and several programs also use Bodie, Kane, and Marcus (BKM), which is a more specialized investments text used in both one term programs and those that separate the teaching of corporate finance and investments into two courses. No other textbook is used by more than one of the MBA programs examined.

All programs spend a significant amount of time (usually between 10 and 20%) on the primary topic of Present Value and other background information. Whether this amount is larger or smaller is often a function of whether this topic is taught in the Accounting course as well. When Accounting is taught before the Finance course or courses, basic ideas of present value are often taught in it for the valuation of bonds, for example. Not surprisingly, the other three topics where significant time and effort are given by virtually all programs are Dividend and Cash Flow Discount Models, Portfolio Theory/CAPM and Capital Budgeting.

Perhaps surprising is the modest treatment of Bond Valuation, including duration and the term structure, given in most courses. One school of thought suggests that the bond topic directly follows from present value analysis and is a logical connection

between Present Value and equity based Dividend and Cash Flow Discount Models. It is also highly tractable for the presentation and discussion of arbitrage, one of the key big picture concepts of finance. This under representation may be an example of courses following a prescribed textbook topic set too closely, since Bond Valuation is not given primary emphasis and placement in the standard textbooks.

Two other topics, Capital Structure and Dividend Policy, which would have likely had a higher profile a decade ago, are now only modestly represented. The average time spent in the core on these topics is less than 10%.

The topic of Options, however, appears to be accorded time in most programs and is almost surely growing in importance. Roll (1994) argues that option theory ought to be the first thing taught in finance, even before discounting arithmetic. Seventy-five percent of programs now teach what appears to be 2 to 6 sessions in the MBA core. This will most likely continue as pedagogy regarding the valuation of options becomes more accessible to the mathematically challenged.

As the reader can see from the spreadsheet, there are other topics taught briefly at individual schools but there are no other topics that are common to a majority of the preeminent MBA programs.

The Ordering of Topics

More than half of the syllabi of the courses examined here go “by the book”. That is, the ordering of topics follows the textbook completely or almost so. This of course has its advantages and disadvantages. The advent of custom textbooks and course packets has and will allow teachers to deviate more easily from the prescribed agenda of the standard texts.

Two observations can be made. First, where there are two courses, the majority teaches investments before corporate finance topics. The philosophy behind this appears to be that investments represent the more primary valuation of future cash flows, where as the main topics of corporate finance take those valuations and add other more challenging issues like agency problems. Naturally, for those programs where the course is taught as a cohesive whole, the topics are more easily blended together.

Second, where only one of the two main streams (investments versus corporate) is chosen, the emphasis appears to be on investments topics starting with present value and almost always including portfolio theory.

Remaining Questions and Issues

This analysis represents only a primer of a few statistics comparing the top MBA programs. As acknowledged at the beginning, this analysis has been mostly descriptive. It paints a picture of what is, not what should be. It should be clear that there is not just one right way to teach the finance core to MBAs. But it should be equally clear that some ways are better than others. Changes in pedagogy will evolve slowly and are most likely to occur as textbooks evolve as well. Unfortunately, it would appear that changing the ordering of textbooks involves overcoming the inertia of an “installed base” of syllabi across the world that possibly prefer no change rather than the work that change involves.

Bibliography

Brealey, Richard A., and Stuart C. Myers, 2001, *Principles of Corporate Finance*, Sixth Edition, Irwin McGraw-Hill.

Roll, Richard, 1994, “What Every CFO Should Know About Scientific Progress in Financial Economics: What Is Known and What Remains to Be Resolved, *Financial Management*, Vol. 23, No. 2, Summer, pp. 69-75.

Welch, Ivo, 2001, The Top Achievements, Challenges, and Failures of Finance, working paper, Yale University. Available at <http://welch.som.yale.edu/>

<u>Course Info—Table 1 of 2</u>	Wharton	Kellogg	HBS	MIT*	Duke	Michigan	Columbia*	Cornell	Virginia	Chicago*	Stanford
How many courses	1	1	2	1	1	1	2	1	1	2	1
Required	yes	yes	yes	no	yes	yes	yes/no	yes	yes	no	yes
Sessions per course	24	20	30	26	12	30	24	21	36	20	18
Minutes per session	80	100	80	90	135	90	90	90	85	90	105
Total Time Spent in Class	1920	2000	4800	2340*	1620	2700	4320*	1890	3060	3600*	1890
Text Books (See legend)	BM	BM	BM, BM2	BM, BKM	BM,GT	BM	H, BKM	RWJ	BM	BKM, BM	RWJ
Cases as % of total	4.2%		85%	0%	0%	7%	40%	10%	70%	20%	30%
Lectures as % of total	95.8%		12%	100%	100%	93%	60%	90%	30%	80%	70%
Guest Speakers as % of total	0%		3%	0%	0%	0%	0%	0%	0%	0%	0%
Total:	100%	NA	100%	100%	100%	100%	100%	100%	100%	100%	100%
Class participation as % of grading	0%	0%	40%	9%	0%	10%	15%	8%	35%	0%	10%
Exams as % of grading	60%	85%	60%	65%	100%	70%	45%	80%	65%	100%	80%
Case Writeups as % of grading	20%	0%	0%	10%	0%	10%	30%	12%	0%	0%	0%
Homework as % of grading	20%	15%	0%	16%	0%	10%	10%	0%	0%	0%	10%
Total:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Hand-in assignments / # of sessions	25.0%	70%	0.0%	38%	0%	33%	55%	86%		50%	78%
<u>Core Topics (as a % of total sessions)</u>											
Present Value/ other background	15%	20%	13%	11%	5%	8%	12%	19%	14%	9%	11%
Bond Valuation (Duration, term structure)	7%	10%	5%	12%	12%	12%	9%	10%	3%	11%	6%
Equity Valuation (DDM & CF Discount Models)	6%	10%	15%	8%	8%	8%	17%	19%	14%	6%	11%
Risk-Return, Port Theory, CAPM & Mkt Eff	17%	40%	12%	31%	16%	20%	32%	19%	3%	29%	22%
Measuring Performance	0%	0%	2%	0%	0%	0%	5%	0%	6%	3%	0%
Futures	0%	0%	0%	4%	12%	0%	0%	5%	0%	0%	0%
Options	9%	0%	8%	15%	12%	0%	12%	10%	14%	9%	17%
Capital Budgeting & Cost of Capital	28%	20%	15%	11%	12%	36%	3%	10%	28%	9%	11%
Capital Structure and Dividend Policy	18%	0%	10%	0%	8%	12%	3%	0%	14%	17%	6%
I-banking - IPOs, M&A, etc.	0%	0%	15%	0%	0%	0%	0%	0%	6%	6%	11%
International	0%	0%	mixed in	0%	10%	4%	4%	0%	0%	0%	0%
Other	0%	0%	5%	8%	5%	0%	3%	10%	0%	3%	6%
Total:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<u>Ordering of Topics</u>											
Investments before Corporate	No	Yes	Blended	No	Yes	Yes	No	Yes	No	Yes	Yes
Corporate in Core	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Futures & Options in Core	Options only	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Bonds before equities	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Denotes over 75% of students take course or courses even though not officially required.

<u>Course Info—Table 2 of 2</u>	UCLA	NYU	CMU	UNC	Dartmouth	U-Texas	Berkeley	Yale	Rochester	INSEAD	LBS	Ivey
How many courses	1	1	1	2	2	1	1	1	1	1	1	1
Required	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sessions per course	11	15	14	17	18	28	28	24	20	14	13	40
Minutes per session	90	90	110	80	90	75	90	80	80	90	90	80
Total Time Spent in Class	990	1350	1540	2720	3240	2100	2520	1920	2800	1260	1170	3200
Text Books	BM	BKM, RWJ	BM	RWJ	BKM, L, RWJ	BM, RWJ	BM	BM	BM	BM	BM,EG, P	BM
Cases as % of total	44%	0%	14%	14%	32%	18%	7%	8%	25%	7%	30%	85%
Lectures as % of total	56%	100%	86%	86%	62%	82%	93%	88%	75%	86%	70%	15%
Guest Speakers as % of total	0.0%	0%	0%	0.0%	6%	0%	0%	4%	0%	7%	0%	0%
Total:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Class participation as % of grading	0%	0%	0%	5%	15%	5%	5%	10%	0%	10%	0%	25%
Exams as % of grading	65%	80%	88%	70%	55%	65%	75%	60%	80%	70%	65%	75%
Case Writeups as % of grading	15%	0%	0%	0%	10%	15%	15%	0%	20%	20%	15%	0%
Homework as % of grading	20%	20%	12%	25%	20%	15%	5%	30%	0%	0%	20%	0%
Total:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Hand-in assignments / # of sessions	100%	20%	28.6%	26%	60%	25%	14%	25%	25%	0%	50%	0%
<u>Core Topics (as a % of total sessions)</u>												
Present Value/ other background	20%	32%	14%	18%	8%	6%	11%	16%	31%	14%	29%	8%
Bond Valuation (Duration, term structure)	5%	0%	8%	6%	11%	6%	11%	8%	13%	7%	14%	5%
Equity Valuation (DDM & CF Discount Models)	15%	8%	4%	9%	19%	14%	7%	8%	19%	14%	29%	15%
Risk-Return, Port Theory, CAPM & Mkt Eff	30%	38%	29%	15%	17%	11%	18%	24%	6%	29%	14%	4%
Measuring Performance	0%	0%	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%
Futures	5%	8%	0%	0%	6%	0%	0%	0%	0%	0%	0%	3%
Options	5%	8%	6%	9%	8%	3%	7%	12%	0%	0%	0%	8%
Capital Budgeting & Cost of Capital	20%	0%	25%	15%	11%	25%	11%	0%	25%	29%	14%	14%
Capital Structure and Dividend Policy	0%	0%	15%	6%	8%	11%	14%	12%	6%	7%	0%	13%
I-banking - IPOs, M&A, etc.	0%	0%	0%	12%	11%	6%	0%	8%	0%	0%	0%	13%
International	0%	8%	0%	0%	0%	3%	0%	0%	0%	0%	0%	8%
Other	0%	0%	0%	12%	0%	16%	18%	12%	0%	0%	0%	13%
Total:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<u>Ordering of Topics</u>												
Investments before Corporate	No	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No
Corporate in Core	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Futures & Options in Core	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	Yes
Bonds before equities	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Textbook Legend

Full Name	Abbreviation
Investments, (Bodie Kane Marcus)	BKM
Principles of Corporate Finance (Brealey Meyers)	BM
Bodie & Merton	BM2
Corporate Finance (Ross, Westerfield, Jaffe)	RWJ
Fin Markets & Corporate Strategy (Grinblatt/Titman)	GT
Analysis for Financial Management (Higgins)	H
Bond and Bond Derivatives (Livingston)	L
Modern Portfolio Theory and Investment Analysis (Elton/Gruber)	EG
FIASCO: Blood in the water on Wall Street (Partnoy)	P