



财务与金融管理专业

投资分析与管理

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(英文版 第5版)

Investment Analysis and Portfolio Management

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弗兰克 K. 赖利 (Frank K. Reilly) 基思 C. 布朗 (Keith C. Brassa



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出版者的话

在全球经济一体化的激烈竞争格局中,中国正处于前 所未有的经济与产业结构调整与转型的关键时期。飞速发 展的社会与错综复杂的变革要求我们的经济与管理水平有 一个飞跃。

为了能让读者系统地学习、借鉴国际上先进的管理理论、方法和手段、机械工业出版社从一些世界著名出版公司引进了一批一流品质的经济管理名著、组成了这套《世界经济管理文库》。其中所选图书均为当前国际上最为流行和权威的教材、大部分多次修订重版、有的多达十几版。作者都是哈佛、芝加哥、斯坦福等著名商学院的教授、使您足不出国、便可领略世界知名学府的文化精粹。

为了给中国的MBA教学提供一套完整的MBA系列教材、继与清华大学经管学院、加拿大級伟管理学院合作共同策划出版的《国际通用MBA教材》与《国际通用MBA教材配套案例》丛书之后、近期,我社又和中国人民大学工商管理学院联手,共同策划本套《MBA专业精品教材》丛书。《国际通用MBA教材》涉及了所有的MBA核心课程,而本套《MBA专业精品教材》也据了MBA各个不同专业方向的全部课程及选修课程,它为各类工商管理学院培养更适

为了保持原作的原汁原味。这套丛书是以英文原版的 形式出版的。这样可以避免因翻译而造成的歧义和出版时 间的滞后,以便让读者能亲身体味原作者的精彩文风, 并 在第一时间洞悉经济管理学科各个领域的截新学术动态。

由于作者所处的社会、政治环境的不同、书中所述难 免有不妥之处、请读者在阅读时注意比较和鉴别,真正消 化吸收其中的精华,这也就达到了出版者出版本套丛书的 目的。我们真诚地希望这套《世界经济管理文库》的出版, 能为提高中国的MBA教学水平、推动中国的改革开放事业 尽点绵藻之力。

> 机械工业出版社 1998年8月

序 言

当前,我国正处于知识经济初露端倪的时代,管理科学已经成为兴国之道,这给我国工商管理教育带来新的机遇与挑战。今年9月,又将有4000余名工商管理硕士生满怀着理想与希望进入各大学学习。一大批机关分流干部与经委系统的管理人员也要经过入学考试,在职学习并申请工商管理硕士学位。如何办好工商管理硕士(MBA)项目,为国家和社会培养出一批又一批符合市场需求的高质量的工商管理硕士,是全国可以授予工商管理硕士学位的56所除校所共同考虑与研究的问题。

在这里,MBA课程设计是成功的关键环节之一。记得在1984年的夏天,在加拿大国际开发总器的资助下,加拿大蒙特利尔大学、麦吉尔大学、康克迪亚大学以及魁北克、子学蒙特利尔分校的教授们为中国人民大学的年轻教师讲授了管理经济学、会计学、管理学以及管理信息系统等MBA课程。在1985年夏天,加拿大的教授们又讲了另外4门MBA课程。当时,我并没有真正了解这些MBA课程与我过去所学的管理课程在实质上有多大的区别,也没有理解这些课程之间的内在联系,对于MBA核心课与选修课以及专业的主修与副修的区别与联系更是知之甚少,只是感

到加拿大教授的教学在内容和手段上与我们传统方式有较大的区别。1988年初,我到加拿大麦吉尔大学管理学院研修后,才真正对MBA的课程设计有所了解。此后、我先后到美国布法罗纽约州立大学管理学院,澳大利亚悉尼科技大学管理学院任教,又对MBA课程之间的内在联系有了更切身的体会。为了更好地了解美国MBA教育的新潮流,今年6月,我又随中国管理学院院长代表团考察了美国著名管理学院,出席了在芝加哥举办的"仓康管理教育论坛会"。

综观北美的工商管理教育、在全球化、信息化与整合 化的挑战下、实在是强调其实用性。纵然有的教授学者看 重自己的象牙宝塔,勾画着纯理论的模型与理论。但在 MBA的教育上,美国现有的750余所管理学院,特别是为 美国管理学院联合会 (The American Assembly of Collegiate School of Business, AACSB) 所承认的300余所管理学院, 培养目标明确、课程设计体现出其为社会需求与市场服务 的宗旨、没有半点的含糊。美国著名的管理院校明确自己 的教育使命、把视野放在全球与创新上、不断地迎接新的 挑战,将所授的知识与社会的实际需求密切地结合起来, 期望培养出真正的高质量的管理人才。例如、哈佛商学院 明确地提出,该院的使命是"影响企业的实践",培养全面 的管理者 (general managers), 指出 "我们要对企业的领导 人在如何完成他们的工作上,即在他们如何提出与解决问 题、确定战略方向和采取行动上施加重大的影响。同时, 我们鼓励从实践中获得反馈, 以便了解这些领导人如何在 实践中应用我们的思想与知识,从而进一步发展与提炼我 们的理论与知识。"麻省理工学院斯隆管理学院的使命"茑 重有用的工作"、"为产业提供服务"、提出"作为管理教育 与研究的世界领导者、麻省理工学院斯隆管理学院要培养 能在快速发展与高度竞争的全球企业环境中获得成功的管 理者。当前持续不断的技术创新已成为每个产业各个方面 生产力和增长的关键、因此、这正是我们的时机。"伯克利 加利福尼亚大学商学院从学院的成立始、就将教育的重点 放在国际 与企业家的舞台上, 研究迅速发展的全球经济, 为学生提供创新的学习机会。

根据上述的使命,美国著名的管理学院教育模式基本 上有三大流源: 一是以哈佛商学院为代表的培养全面管理 人员的模式。斯坦福商学院的培养方式也是属于这种模式。 他们培养的是全面的MBA,而不是专业化的MBA,通过 为学生提供必要的专业知识、使之毕业以后成为企业或其他组织中高层的有效的全面管理者、而不是取能部门的管理人员。二是以芝加哥大学管理学院为代表的培养专业管理人员的模式、其方向是为企业和组织培养专业的管理人员。斯隆商学院亦属于这种类型。三是介于两者之间的模式。美国多数管理院校采用的是这种培养目标,如伯克利商学院、两北大学的测洛格商学院、洛杉矶加州人学、康乃尔大学管理学院以及杜克人学管理学院等。因此、各个管理学院在其课程设计上有着不同的战略重点。

哈佛商学院MBA课程设计的思路是"在日益增长的金球商务环境中,提高学生进行战略性与关键性思考的能力。"斯坦福商学院MBA课程设计的思路是"确保学生获得管理运行的知识。了解企业运行的经济、政治和社会环境、以及掌握作为管理者所必须的行为技能。"同时,"MBA项目也要设计成为一种可以终身学习的模式。这样、今天的学生将在今后贯穿其事业的复杂而快速变化的管理世界中有能力自如地作出调整。"斯隆管理学院MBA课程设计的思路是"对日益增长的市场全球化和密集的竞争正在改变工作性质的这一事实作出反应。"哥伦比亚商学院MBA课程设计的思路是"让学生学操作为管理者能够在全球经济中讲行有效竞争所需的基本学科与应用的职能领域。"

总之,这些学院在设计MBA课程时,首先、考虑当起学生要了解全球的竞争环境。其次、考虑学院所在的地域和环境。例如, 舒伦比亚高学院极其强调该院处于组约这个金融中心、其战略重点是国际、金融和组约, 培养出的学生要适合在国际大城市从事金融工作。因此, 该学院在课程设计上就对财务与金融等相关课程有所侧重。再次、考虑学院自身资源的特点, 如斯隆管理学院在技术管理上设置较多的课程, 而哈佛商学院则在全面管理与竞争战略课程上有所突出。最后, 要使学生获得相关的专业知识、了解研究与实践的前沿, 如企业伦理、领导精神、创新、以及企业与政府关系等。

在课程设计的内容上、美国管理学院根据自己的情况, 多按传统划分为核心课程与选修课程。课程内容上并不划一,门数上也多少不等。在学习核心课之前、学生要预先 学习计算机应用和技能、商务沟通以及基本数量分析方法; 等课程。在核心课上、各学院基本上开设了经济学、统计 成数据分析、会计、财务、市场宣销、运作管理、组织行

为、人力资源管理、战略管理以及公共管理等课程。 当然, 也有例外。芝加哥大学管理学院就不设置核心课。在选修 课程上,除哈佛商学院外,各学院基本上设置了专业,如 管理经济学 (Managerial Economics)、会计 (Accounting)、 财务管理 (Financial Management)、税收 (Taxation)、管理 科学 (Management Science), 信息系统 (Information Systems)、市场营销 (Marketing)、组织行为学 (Organization Behavior)、人力资源管理 (Human Resource Management)、国际商务 (International Business)、战略管 理(Strategic Management)以及公共管理(Public Management) 等。最具特色的是斯隆管理学院的课程设计。该学院除了 设计出体现管理基础原理和技能的六门核心课以外、根据 学生今后所要从事的工作方向, 创造性地设计自我管理模 块(Self Managed Track)与管理模块 (Management Track)。 自我管理模块包括应用宏观与国际经济学、财务管理或财 务理论、信息技术、产业关系与人力资源管理、运作管理 导论和市场营销导论等六门课。如果学生希望将来从事较 为全面的管理工作,则可以选择自我管理模块。而学生希 望成为更专业的管理人员,则可以选修管理模块。在这个 模块中,有六个分模块,即战略管理与咨询(Strategic Management and Consulting)、新产品与风险开发(Product and Venture Development)、信息技术与企业变革(Information Technology and Business Transformation)、金融工程(Financial Engineering)、财务管理(Financial Management)以及制造与 运作(Manufacturing and Operations)。这种设计打破传统职能 性课程的框架, 切实反映市场的声音, 力图符合具体职业 领域的要求,使学生能在今后的工作中更快地进入某个具 体的管理角色。

我国工商管理硕士教育总体来说,还处在试点阶段之中。在课程设计上,会国工商管理硕士教育指导委员会规定了核心课的指导大纲。经过多年的建设、MBA核心课的教材已经初步满足教学的需求。当然,在质量上还有待进一步完善。随着MBA教学的深入发展,一些院校在培养全面管理人员的基础上,进一步根据自己院校的区域环境和办学条件,探索开设专业方向,以便培养出更适合社会需要的专门管理人才。这就对课程设计提出了新的要求,希望有更专门化的课程支持不同的专业方向。这不仅对教师的科研提出了更高的要求,而且对教材的建设也提出新的

需求。教材不足便是当前工商管理教育中最大的困惑之一。

为了满足工商管理专业方向的发展以及相应的课程设计,在中国人民大学工商管理学院的策划下,机械工业出版社推出了英文版的《MBA专业精品教材》,填补教学用与中空自,力图缓解MBA各专业教学上的急需。在这套处书中,我们精心选择了北美在经济学、战略管理与组织、管理科学、财务与金融管理、会计、市场营销以及商务技能等了个专业的英文版教材、期望对国内各管理学院所开设的管理专业有所帮助。同时,有志于学好MBA某个专业的管理人员、研究生甚至本科生也可以通过系统地学习该专业所列的教材、掌握个中二味。

当然,在学习西方的管理理论与经验时,需要认真对 待其内在的文化底蕴。正如同样是绘画、西方的绘画注重 光线与颜色, 体现出一种形象思维, 而中国画则注重线条, 体现出内在的逻辑思维、从而表现出中国文化与西方文化 的差异。本世纪初以来,我国知识分子一直在研究与吸收 西方文化, 力图西学中用。正如有人所讲, 学习的方法有 三种形式,一是鸟瞰的方法,二是仰视的方法、三是平视 的方法。鸟瞰者、持才傲物、看不起其他民族的文化、更 看不起其他民族的管理理念与方法。仰视者, 自卑自弃, 看不起自己民族的文化。盲目追求其他民族的管理理念与 方法。要真正作到西学中用、而不是仅仅学到一些皮毛的 话,则需要运用平视的方法,拉开距离,去观察与学习世 界上一切优秀的管理理念与方法。今天、我们利用西方的 管理理论与实践、是为了更合理地推动中国的管理教学与 科研、促进中国的管理实践、切不可邯郸举步、而是真正 做到"以我为主、博采众长、融合提炼、自成一家"。

第= 例 #士

中国人民大学管理学教授 中国人民大学工商管理学院院长 全国MBA教育指导委员会委员 1998年盛夏于北京

Investment Analysis and Portfolio Management

Tilih Ldation

Frank K. Reilly University of Notre Dame

Keith C. Brown University of Texas at Austin



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To my best friend and wife, Therese. and our greatest gifts and sources of happiness, Frank K. III, Charlotte, and Lauren Clarence R. II Therese B. Edgar B., Michele, and Kayleigh F. K. R.

To Sheryl, Alexander, and Andrew, who make it all worthwhile K. C. B.

FREQUENTLY USED SYMBOLS

β	beta coefficient, a measure of an asset's
	systematic riskiness.

C call option value

CAPM capital asset pricing model.

CAR cumulative average residuals.

CF cash flow; CF, is cash flow in period t.

CML capital market line.

COV., the covariance of the returns between assets i and i

D dividend per share of stock; D_i is dividend per share during period t.

DM deutschemark (German currency).

EBIT earnings before interest and taxes.

EMH efficient market hypothesis.

EPS earnings per share.

E(R) the expected return; E(R_i) is the expected return during period t.

F futures contract delivery price.

FV future value.

FVIF future value interest factor for a lump sum.

FVIFA future value interest factor for an annuity.

FX foreign exchange.

G geometric niean,

g growth rate in earnings, dividends, or stock prices.

h hedge ratio.

HPR holding period return

HPY holding period yield.

I rate of inflation.

k required rate of return.

£ pound (United Kingdom currency).

P price of a share of stock or put option; Po is the current price.

P/E the price/earnings ratio.

PPP purchasing power parity.

PV the present value. lumn sunı.

PVIF the present value interest factor for a

PVIFA the present value interest factor for an annuity.

rii the correlation coefficient between assets i and i.

RFR the rate of return on a risk-free asset

ROA return on assets.

ROE return on equity.

RR the fraction of a firm's earnings retained rather than paid out. It is equal to (1 - D/E), where D/E is the ratio of dividends (D) to earnings (E).

SML security market line.

Σ summation sign (capital sigma).

σ standard deviation (lowercase sigma).

σ_i, covariance between returns for security i and i.

t tax rate.

time when used as a subscript (e.g., D,-the dividend in year t).

T time to expiration.

V the value of an asset: V. is the value of

asset j.

X option exercise price.

yen (Japanese currency).

YTM yield to maturity.

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Hearth and Zaima

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Issues and Readings in Managerial Finance

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Mayes and Shank

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Stickney

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A Strategic Perspective Third Edition

Weston, Besley, and Brigham

Essentials of Managerial Finance

Eleventh Edition

The pleasure of authoring a textbook comes from writing about a subject that you enjoy and find exciting. As an author, you hope that you can pass on to the reader not only knowledge but also the excitement that you feel for the subject. In addition, writing about investments brings an added stimulant because the subject can affect the reader during his or her entire business career and beyond. We hope what readers derive from this course will help them enjoy better lives through managing their resources properly.

The purpose of this book is to help you learn how to manage your money so that you will derive the maximum benefit from what you carn. To accomplish this purpose, you need to learn about the investment alternatives that are available today and, what is more important, to develop a way of analyzing and thinking about investments that will remain with you in the years ahead when new and different investment opportunities become available.

Because of its dual purpose, the book mixes description and theory. The descriptive material discusses available investment instruments and considers the purpose and operation of capital markets in the United States and around the world. The theoretical portion details how you should evaluate current investments and future opportunities to develop a portfolio of investments that will saisify your risk-return objective.

Preparing this fifth edition has been challenging for two reasons. First, many changes have occurred in the securities markets during the last few years in terms of theory, new financial instruments, and trading practices. Second, as mentioned in the prior edition, capital markets have become global. Consequently, very early in the book we present the compelling case for global investing. Subsequently, to ensure that you are prepared to function in this new global environment almost every chapter discusses how investment practice or theory is influenced by the globalization of investments and capital markets. This completely integrated treatment is to ensure that you leave this course with a completely global mindest on investments that will serve you well into the wenty-first century.

INTENDED MARKET

This text is addressed to both graduate and advanced undergraduate students who are looking for an in-depth discussion of investments and portfolio management. The presentation of the materials intended to be rigorous and empirical, without being overly quantitative. A proper discussion of the modern developments in investments and portfolio theory must be rigorous. The detailed discussion of numerical empirical studies reflects the belief that it is essential for our theories to be exposed to the real world and be judged on the basis of how well they help us understand and explain reality.

KEY FEATURES OF THE FIFTH EDITION

When planning the fifth edition of *Investment Analysis and Portfolio Management*, we wanted to retain its traditional strengths and capitalize on new developments in the investments area to make it the most comprehensive investments textbook available.

First, the fifth edition maintains its unparalleled international coverage. Investing knows no borders, and although the total integration of domestic and global investment opportunities may seem to contradict the need for separate discussions of international issues, it in fact makes the need for specific information on non-U.S. markets, instruments, conventions, and techniques even more compelling. Sections of chapters that deal with international topics are designanted by this icon §EEE for easy identification.

Second, today's investing environment includes derivative securities not as exotic anomalies but as standard investment instruments. We felt that Investment Analysis and Portfolio Management mus reflect that situation. Consequently, our four chapters on derivatives have been completely rewritten to provide an even more intuitive, clear discussion of the different instruments, their markets, valuation, trading strategies, and general use as risk management/return enhancement tools.

The introductory derivatives chapter appears early in the book as Chapter II in the section on "Developments in Investment Theory." We kept this placement from the previous edition because we are still committed to the philosophy that every investments student needs to be exposed to the basics of derivative instruments, markets, and usage. Our Chapter II provides this overview.

For instructors who want to get into more detail on derivative pricing, valuation, and strategies, we have three separate chapters near the end of the book. Chapter 23 discusses forwards and futures contracts fits, before options, because typically investors consider forward/futures positions before they turn to options to hedge risk. Chapter 24 then covers option contracts, which are variations of forwards and futures. Part 4 concludes with a chapter on swaps, warrants, convertibles, and structured notes. Chapter 25 is an in-depth discussion of these more "advanced" derivative types.

Third, we have reordered Chapter 10, "Extensions and Testing of Asset Pricing Theories," to follow immediately after the introductory chapter on asset pricing models. We felt that instructors who wanted to teach this chapter would do so in this order, not as a final chapter as it appeared in the previous edition.

Fourth, we have added many new questions and problems to the end-of-chapter material, including a significant number of CFA exercises, to provide more student practice on executing basic computations and then applying them to more sophisticated investment problems.

Finally for the fifth edition, we have added two new chapters, Chapter 2, "Asset Allocation," and Chapter 22, "Equity Portfolio Management Strategies." The addition of both of these chapters reflects our commitment to the application of investment concepts through the creation of portfolios and their management.

MAJOR CONTENT CHANGES IN THE FIFTH EDITION

The text has been thoroughly updated for currency. In addition to these time-related revisions, we have also made the following specific changes to individual chapters:

Chapter 2	A new chapter on global asset allocation describing the portfolio management process and matching investors' goals with investment strategies
Chapter 3	Increased description of international bond markets and an in-depth discussion of real estate instruments, such as REITs and CREFs
Chapter 4	Discussion of emerging national markets in such countries as China and Hungary. A summary description of developed and emerging markets
Chapter 5	Description of the Brinson Partners Global Security Market Index and a full update on bond market indexes. A summary description of dozens of indexes from around the world
Chapter 6	Detailed section on obtaining bond information. Expanded discussion of new online information sources