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世界经济
管理文库

经济学

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Economics

Paul A. Samuelson William D. Nordhaus

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致读者(代序)

这是一本供初学者使用的经济学入门书,也是一本供经济学的老学生温故而知新的经济学手册。它可以作为教材使用,也可以供自学之用。

当你在决定是否购买这本书之前,你需要考虑的是:你能从这本书中得到什么收益?这种收益是否能补偿你为此付出的成本?(这种成本不仅包括你支付的货币,而且包括你读这本书所要花费的时间。一般来说,读书的时间成本远远大于货币成本,但许多人常常忘记了这一点,所以他们在决定是否买一本书时,过多地考虑了书价的高低。)下面的问题或许有助于你作出决策。

一、为什么要学习经济学

经济学是经济学家提供给社会大众的一种改进生活、认识世界的武器。或许你并不想做一名经济学家,但即使如此,你仍然应该学点经济学。

首先,学习经济学有助于你作出更好的个人决策。在你的一生中,你需要作出各种各样的经济决策。比如说,在即将完成高中学业的时候,你需要决定是否去上大学?在大学毕业的时候,你需要决定是继续在国内读研究生,还是出国留学,或者去工作?在工作之后,你要决定如何花费你的收入:多少用于现在的消费?多少用于储蓄?如何投资你的储蓄?是买股票还是存在银行?或许有一天你成了一个企业的老板或经理,此时,你需要决定你的企业应该生产什么产品?卖什么样的价格?在什么媒体上作广告?招收什么样的人员?提拔谁当你的助手?如此等等,不一而足。为什么决策是重要的?因为你的资源是有限的——你的时间有限,收入也有限。如果你参加工作,就可能没有时间上大学;如果你把钱用于买房子,就可能没有钱再来买汽车。所以你必须在各种竞争性的需求之间分配你有限的资源。进一步,更为麻烦的是,你的决策常常是在不确定的情况下作出的。比如说,当你选择学无线电专业的时候,你并不确定当你毕业的时候,这个专业的就业前景如何。为了避免决策的失误,你需要一些理论的指导。经济学是有关个人选择的科学,学习经济学有助于你作出更好的决策。明白了这一点,你就明白了为什么经济学是西方大学里听众最多的选修课。

其次,学习经济学有助于你理解你生活于其间的世界是如何运转的。你的生活状况不仅取决于你自己的决策,而且依赖于其他人的决策,以及周围环境的变化。理解你周围的世界如何运行,自然有助于改进你的决策。你可能为生活中的许多事情感到惊奇。比如说,当你想买一台电视机的时候,只要支付必要的价格,就可以把它从商场搬回家;当你在大街上走得饥肠辘辘的时候,走进一家饭馆就可以指挥别人给你上菜,而无须回家自己做饭。而事实上,你事前并没有告诉电视机的生产厂家为你生产一台电视机,也没有通知饭馆的老板为你准备饭菜。那么,是什么因素使你得到你想要的东西?经济学是有关人们之间的决策如何相互作用的科学。学了经济学,你就可以明白市场这只“看不见的手”如何使自利的个人为大家服务;你也可以明白,为什么中国电信的服务那么差,而收费却那么高;为什么北京的“面的”司机有拒载现象,而奥迪车司机却不拒载;为什么一个流行歌手演出一晚上可以赚好几万元,而一个建筑工人一个

月却只能赚几百元；为什么利率一上升股票价格就下跌；为什么中国经济增长这么快，而下岗工人却越来越多；为什么国有企业设备那么好，而就是竞争不过民营企业；为什么那么多国有企业的厂长经理一生勤勤恳恳，一到 59 岁就犯贪污罪.....。

再次，学习经济学有助于你理解政府政策的优与劣。每个社会都离不开政府，学习了经济学，你会明白我们为什么需要政府，什么是政府应该干的，什么是政府不应该干的。我们需要政府，是因为在存在诸如外部性、公共产品这样的场合，依靠市场不能达到资源的有效配置。比如说，如果没有政府的干预，自私自利的企业家也许会使你喝太多的污水；如果没有政府，私人部门也许不会提供你诸如路灯这样的公共产品。特别地，我们需要政府来提供市场交易所需要的规则和秩序这样一类公共产品，需要政府保护我们的个人财产和人身安全。但政府对市场的过多干预常常导致供给不足、价格扭曲、资源浪费、垄断横行。政府的政策选择不仅影响整个社会的资源配置效率，而且影响包括你在内的每个公民的福利。所以当你希望政府制定某种政策的时候，你必须谨慎考虑这种政策的不利后果。经济学常识有助于你思考这样的问题。比如说，如果你是一个打工仔，你也许会认为政府应该制定一个“最低工资法”保护你的利益，或者向富人多征税来补贴你，而经济学原理会告诉你，这样做的后果也许是你根本就找不到工作。再比如，作为消费者，你也许会认为政府应该对商品的价格作出限制，而经济学会告诉你，这样做的后果是你也许再也买不到这种商品。常识可能会误导你，经济学会使你不至于迷信政府。

最后，学习经济学可以改进你的思考方式。经济学是一门科学。科学是什么？科学是一种思考问题的方式。如同天文学家通过观测天体现象来归纳天体运行规律一样，经济学家通过观测现实经济现象归纳经济规律。经济学家有自己的语言和思维方式。诸如需求、供给、弹性、消费者剩余、机会成本、比较优势、外部性、信息不对称、均衡等等，是经济学的基本语言。掌握了这些经济学语言，你就可以更好地思考你周围的世界是如何运行的。外行人常常批评经济学家看问题过于简单，而他们忘了，科学的力量就在于把复杂的现象简单化。经济学就象一张指路图，它舍弃了现实中的许多细节，却使你更清楚自己要去的方向。你没有必要成为一位经济学家，但知道经济学是如何思考问题是有益的，至少，你不大容易被蹩脚的经济学家和夸夸其谈的政治家所蒙蔽。无论你今后干什么，你不会后悔自己学过经济学。

二、为什么选择这本书

如果你已经决定学点经济学，接下来要作出的一个决策是选择哪本书入门？你当然希望选择一本最好的教科书。问题是选择好的教科书并不是一件容易的事，因为图书市场充斥着众多的教科书，质量参差不齐。每位作者都会声称自己的书最好，而作为初学者，你不大可能有能力判断哪本好，哪本不好。这就是经济学家讲的信息不对称：买的人不如卖的精。

在这种情况下，最安全的办法当然是选择最权威的经济学家写的最新版的教科书。为什么要选择最权威的经济学家写的教科书？原因不仅是因为最权威的经济学家炉火纯青，对理论的把握最准确，能深入浅出地写出“正经”来；而且因为最权威的经济学家最注重自己的名声，他们既没有必要用出一本新书的办法增加自己的知名度，也不敢为了赚取版税而滥竽充数地出书。这就如同麦当劳不敢卖过时的汉堡包一样。他们的声誉就是质量的代号，他们的名字就是一种品牌。

为什么要选择新版的教科书？因为如同经济生活本身一样，经济学也在不断发展和演化，以用新的理论解释新的经济现象。特别是过去 20 多年里，随着博弈论、信息经济学和理性预期

的引入,经济学可以说发生了一场革命。经济学理论越来越贴近现实,对现实的解释能力越来越强。比如说,20多年前,经济学理论还难以为企业经营决策提供多少理论指导,而今天,博弈论已成为企业战略管理的基础;20多年前,经济学家对公司融资几乎无话可说,而今天,信息经济学已成了公司融资理论的基础;20多年前,经济学家还在迷信于用政府管制来弥补市场的失灵,而今天,政府管制被认为是资源配置无效率的最主要原因之一,从而导致了席卷全球的经济自由化浪潮。或许,我们可以将70年代经济学教科书与90年代经济学教科书的差别,类比为286计算机与586计算机的差别。只有使用最新版的教科书,你才能学到最新的经济学理论。

过去,中国教科书市场上很难看到最权威的经济学家写的最新版的经济学教科书,翻译过来的教科书一般滞后于原版10年以上,而国内经济学家写的“西方经济学”教科书其内容则更为陈旧,更不用说在有色眼镜透视下的扭曲了。可喜的是,近几年来,随着中国的改革开放,经济学图书市场正在发生一场革命性的变化,不仅国外最新版的英文著作在及时引进,而且国内经济学家也出版了一些在内容上与国外同步的经济学教科书。

在此,我愿意向你推荐机械工业出版社最新出版的如下三本教科书:

1. N. Gregory Mankiw 著: *The Principles of Economics* (经济学原理), 1998 年第 1 版。
2. William Baumol 和 Alan Blinder 合著: *Economics — principles and policy* (经济学: 原理与政策), 1997 年第 7 版。
3. Paul Samuelson 和 William Nordhaus 合著: *Economics* (经济学), 1998 年第 16 版。

这三本书都是享誉全球的经济学大师撰写的最新版的经济学入门书,是西方大学里最流行的教科书。

N. Gregory Mankiw 是美国著名的年轻一代经济学家,早年毕业于普林斯顿大学,并在 MIT 获得博士学位,现为哈佛大学经济学教授,同时兼任著名的智囊机构国家经济研究局(NBER)货币经济学项目主任,波士顿联邦储备银行和美国国会预算办公室顾问。他的《宏观经济学》是美国最畅销的教科书之一。他是一位多产而富有创新思想的经济学家,在多种一流学术杂志上发表了数十篇开创性的论文,被公认为是新凯恩斯经济学的代表人物之一。他在经济学界的名气比他的年龄大得多。

N. Gregory Mankiw 的《经济学原理》今年一上市,就成为最畅销的教科书,出版商在付印之前就支付了作者 100 万美元的版税,创下了教科书版税的新纪录。这本教科书的最大特点是它的“学生导向”。如作者自己指出的,他要写的是一本学生喜欢看的经济学的教科书。与其他同类教科书相比,本书更多地强调的是经济学原理的应用和政策分析,而不是正式的经济学模型。为此,作者在大部分章节里都提供了案例,以说明经济学原理如何应用于现实经济问题的分析。此外,作者在书中还提供了大量的“新闻摘要”,以使读者懂得什么是生活中的经济学。

William Baumol 和 Alan Blinder 也是两位享誉全球的著名经济学家。Baumol 生于 1922 年,在美国纽约州立大学获得艺术学学士学位,在英国伦敦经济学院获得经济学博士学位,曾执教于普林斯顿大学,现为纽约州立大学经济学教授,曾担任过美国经济学会主席等多种学术职务。他在产业组织、企业理论、经济增长、反垄断理论等方面作出重要的开创性贡献,发表了 500 多篇学术论文和 20 多本著作,其中有些著作被翻译成多种文字。

Blinder 生于 1945 年,在普林斯顿大学获得经济学学士学位,在 MIT 获得经济学博士学位,自 1979 年以来,Blinder 任普林斯顿大学经济学教授;1988 年至 1990 年间担任普林斯顿大

学经济系主任;1993年至1996年间,先后担任美国总统经济顾问委员会委员,联邦储备委员会副主席。Blinder发表有多种专著和学术论文,在人力资本和劳动供给、货币政策和财政政策、不确定性和一般均衡等方面都有重要贡献。

Baumol和Blinder合著的《经济学:原理与政策》初版于1979年,也是美国等国家最流行的经济学教科书之一(就我所知,本书有澳大利亚版),多次再版,到1997年已出到第7版。本书的最大特点是叙述上的“问题导向”和“政策导向”。作者认为,学习经济学的最好方法是“从问题到理论”,而不是相反。为此,本书的每一章都从一个具体的、使人感到困惑甚至自相矛盾的政策问题或现实问题开始,然后通过深入浅出的经济学分析,使你走出迷雾。这样做不仅提高了读者读书的兴趣,而且可以加强读者对所学内容的记忆。如果你能记住本书作者所归纳的经济学的12个基本观点,你将终身受益。

Paul Samuelson(保罗·萨缪尔森)是当代经济学泰斗,1972年诺贝尔经济学奖得主,MIT经济系的创始人。他的《经济学》第1版出版于1948年,至今已有整整50年的历史。在50年的时间里,他的《经济学》不断再版,被翻译成包括中文、俄文、日文、法文、德文在内的数十种文字,风靡全世界,是有史以来发行量最大的经济学教科书,教育和影响了数代经济学家、政治家、企业界领袖、新闻记者以及众多的普通人。难怪他自豪地说:“如果我能为一个国家写经济学教科书,我并不在乎谁为它写法律,谁在为它起草条约。”Samuelson本人对他的《经济学》的修订到第14版(1992年)。1995年,另一位著名经济学家William Nordhaus的加盟,使得《经济学》没有随Samuelson本人的衰老而衰老,而继续以主流经济学最前沿的教科书身份畅销全球。你现在看到的是该书的第16版,出版于第1版50岁生日之际。

尽管这三本教材所叙述的经济学原理并无大的差别,但由于每个作者的个人偏好和学术风格不同,在叙述方法、切入角度、材料的取舍等方面还是各有千秋。不同书中用于说明同一原理的有些材料互为补充,有助于加深读者对基本理论的理解。据悉,这三本书已由18位国际著名商学院的教授联合推荐作为中国MBA及经济学/管理学院的首选教科书。我个人学习经济学多年,可以说是经济学的老学生了,但现在再拿起来读这些入门书,仍感有不少新的收获。事实上,当我在为博士生备课时,常常要翻一翻这样一些经济学入门书,以在理解上“温浅而知深”,讲课时深入浅出。美国著名经济学家Herbert Stein说:绝大部分可用于指导公共政策的经济学都在本科生的经济学入门教程中。我的经历告诉我,他的话是对的。

如果你的经济条件许可,我建议你不妨同时拥有这三本书。我的经验是,读三本由不同经济学大师写的同一类型的教科书要比读三遍同一大师写的同一本书收获大。你可以从任何一本书开始,然后在每一部分对照阅读。特别地,当你对本书的内容难以理解时,最好看看另外两本书上是如何写的。你大概有过这样的生活经历:见过一次面的人没有给你留下什么印象,但在另一场合再次谋面后,他就深深印在你的脑海中。读书也是如此。当然,如果经济条件不允许,你买其中的一本就可以了。但你最好能记住我一开始说过的话:读书最大的成本是时间而不是书价。要买好书,不要买便宜的书。

现在,你可以作出自己的决策了。

张维迎

北京大学光华管理学院经济学教授

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英国牛津大学经济学博士

1998年6月7日星期日

ABOUT THE AUTHORS



PAUL A. SAMUELSON, founder of the renowned MIT graduate department of economics, was trained at the University of Chicago and Harvard. His many scientific writings brought him world fame at a young age, and in 1970 he was the first American to receive a Nobel Prize in economics. One of those rare scientists who can communicate with the lay public, Professor Samuelson wrote an economics column for *Newsweek* for many years and was economic adviser to President John F. Kennedy. He testifies often before Congress and serves as academic consultant to the Federal Reserve, the U.S. Treasury, and various private, nonprofit organizations. Professor Samuelson, between researches at MIT and tennis games, is a visiting professor at New York University. His six children (including three triplet boys) have contributed 15 grandchildren.

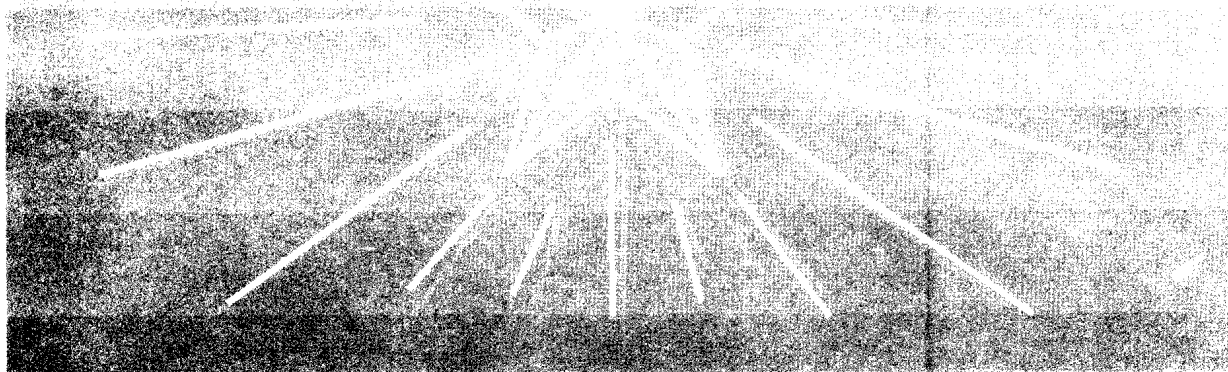
WILLIAM D. NORDHAUS is one of America's eminent economists. Born in Albuquerque, New Mexico, he was an undergraduate at Yale, received his Ph.D. in economics at MIT, and is now the A. Whitney Griswold Professor of Economics at Yale University and on the staff of the Cowles Foundation for Research in Economics. His economic research has spanned a wide variety of topics—including the environment, price measurement, energy, technological change, economic growth, and trends in profits and productivity. In addition, Professor Nordhaus takes a keen interest in economic policy. He served as a member of President Carter's Council of Economic Advisers from 1977 to 1979, was Provost of Yale University from 1986 to 1988, and writes occasionally for the *New York Times* and other periodicals. He regularly teaches the Principles of Economics course at Yale. Professor Nordhaus and his family live the urban life in New Haven, Connecticut, and share an enthusiasm for music, hiking, and skiing.



To
Our
Children
and
Students



A NOTE FROM THE PUBLISHER



This is the fiftieth year that it has been our privilege and our pleasure at McGraw-Hill to publish Paul Samuelson's and, later, Samuelson and William Nordhaus's *Economics*. In that time, Professor Samuelson defined the field of economics in this remarkable book. Millions of students have been taught how economics can unravel the mysteries and problems of modern societies, problems that go to the heart of how, and how well, we live.

As William Nordhaus joined Professor Samuelson at the helm, this book continued to introduce later generations to the power of economic science. And as the ideas of monetarism, rational expectations, and supply-side economics captured the headlines, this book calmly included them in its presentation without crowding out the basic truths of the Keynesian and classical models. Today's students learn that economics can also shine a bright light on environmental problems, on dilemmas of health care, and on how to reckon the opportunity cost of a college education.

Keynes wryly observed, "In the long run, we are all dead." Now, sixteen editions later, I'm not so sure. We seem to have quite a pulse rate.

Gary Burke
Publisher

A GOLDEN BIRTHDAY

At its fiftieth birthday, this *Economics* has witnessed an exciting half-century of progress in economics. Our subject has come a long way. But there is so much farther to go before this, or any social science, can make pretense to be anywhere near an exact science. Economics will always be as much an art as a science, but still there's a world of difference between informed economics and just plain bad economics.

Today the number of jobs for economists has exploded. Statistical databases—inside government, in private industry, and within academia—are many times more comprehensive than they were in the late 1940s. Now information gets reported sooner, and computers give us access to statistical facts and knowledge with the speed of light. No branch of production has benefited more from the advance of computer hardware and technology than research in political economy itself. And that includes economic theory and applied economics.

And yet the fundamentals remain broadly intact. History—at least economic history—has taught the world certain basic economic principles that have been learned and tested the hard way. Repeated recessions and inflationary booms have been the economists' substitute for the chemists' controlled laboratory experiments. The tragic comedies of Russian and Chinese communistic organization of production and distribution have robbed three generations of the potential fruits of rising standards of

material life. At the same time, the completely free market mechanism has not been able to bring all of humankind measurable near-equality of opportunity and outcome.

Because of "the poor we have always with us," the modern democratic state has evolved everywhere into a "mixed economy"—neither pure laissez-faire market mechanism nor Robin Hood utopia. Alas, only by their study of the rudiments of economics can the citizenry understand and decide about where should lie the *golden mean* between the selfishness of individual initiative and the regulatory, stabilizing, and redistributive functions of government. The mixed economy must, perforce, be the "limited mixed economy."

A Time to Look Back

A fiftieth birthday is a good time to look back. What is the story that emerges from this history of a trend-setting bestseller? How did this textbook come to be? Gaze back to 1945. Germany and Japan were defeated and American colleges were nearly overflowing with people returning from World War II. At the same time, the science of economics was entering a golden age. The Great Depression of 1929–1935 had finally been licked by forceful programs that threw out the window the old orthodoxies of do-nothing monetary and fiscal policies. Britain and America had later mobilized their

economies for war in a way that Hitler, Mussolini, and Hirohito had never dreamed of. And, though we could not know it in 1945, the Marshall Plan and American occupation of Japan were about to set the stage for miraculous decades of postwar economic growth.

College students deserved to understand all this. But, as teachers of my generation knew to our sorrow, the best-selling economics textbooks were seriously out-of-date. No wonder beginners were bored. My students at Harvard and MIT often had that glassy-eyed look.

In 1948, when *Economics* was first published, the word “macroeconomics”—the study of what determines a society’s unemployment, its price level and inflation rate, and its rate of overall real GNP growth—was not even in the dictionary! But had *Economics* not brought guns-and-butter choices into elementary microeconomics, someone, somewhere, would soon have done so. The time was ripe for a revolutionary approach to introductory economics. The real question is: Why me?

I was back from the MIT Radiation Laboratory, where I had worked at the mathematical job of designing automatic servomechanisms to ward off enemy bombers, and I “thirsted” for a return to economic research and teaching. And I was 30 years old, a good age to write a text or innovate a treatise. By chance, my advanced work, *Foundations of Economic Analysis*, which was to win me a Nobel Prize in economics 25 years later, was already in press.

However, in those days, a promising scholar was not supposed to write textbooks—certainly not basic texts for freshmen and sophomores. Only hacks were supposed to do that. But because I had already published so many research articles, it seemed that my reputation and prospects for lifetime tenure could allow me the elbowroom to respond positively to the request for a new textbook by my department head at MIT. Being cocky, even brash, in those good old days, I had only myself to please. And I agreed it was high time that we got some of the leaders in economic research back in the trenches of general education.

The Long Grind of Creation

Starting a project is easy. Bringing it to full term involves enormous labor and great travail. As soon as each chapter was written, the mimeograph machine ground it out for testing on our MIT students. I

found it demanding but pleasant work. But what I naively thought might be a year’s job turned into three years of writing and rewriting. And my tennis suffered, as weekends and summer vacation had to be devoted to the task of reducing to plain and understandable prose the fundamental complexities of economic science. Even the traditional diagrams of economics, I discovered, needed redesigning if the “dismal science of economics” was to become the exciting subject it really is.

The Moment of Truth

In the autumn of 1948 the first edition of *Economics* rolled off the presses. No matter how hard the advance work or how optimistic the dreams, one can of course never be sure how the future will turn out. Fortunately, from the word go, this novel approach to economics seemed to have hit a responsive chord. Colleges big and small opted for the new book, and as each fresh printing was sold out, *Economics* was back again for new press runs.

When a Guggenheim fellowship took me to Europe, I checked each main bookstore in major cities for the availability of translations into French, German, Italian, Spanish, and Swedish. And in addition to experiencing the natural vanity of an author, I was pleased as an educator to see that the citizenry, who would be deciding global policies, was being exposed to the pros and cons of up-to-date mainstream economics.

Reviews of the book speeded up the bandwagon. The first came from the pen of John Kenneth Galbraith, then an editor of the conservative business magazine *Fortune*. He predicted that the next generation would learn its economics from Samuelson’s *Economics*. And although praise is sweet to an author’s ears, I confess that the durability of the book’s dominance did surprise me. Galbraith turned out to be more prescient than I, and *Economics* did set a new and lasting pattern. Most of its successful rivals have been written in its general evolving mode, and it is heartwarming that much of the competition has come from the pens of personal friends.

Rough Pebbles along the Way

Not always has it been fun and games. In the reactionary days of Senator Joseph McCarthy, when accusations of radicalism were being launched from the pulpit and in the classroom, my book got its

share of condemnation. A conservative alumnus of MIT warned university president Karl Compton that Paul Samuelson would jeopardize his scholarly reputation if he were allowed to publish his apologetics for the “mixed economy.” Dr. Compton replied that the day his faculty was subjected to censorship would be the day of his resignation from office. It all seems slightly comical four decades later, but it was no joke to be a teacher at a public university when many of the fashionable textbooks of the time were being denounced as subversive. (One excellent text, which came out a year before mine, was killed in its infancy by vicious charges of Marxism that were false from the beginning.) Actually, when your cheek is smacked from the right, the pain may be assuaged in part by a slap from the left. *Anti-Samuelson*, a two-volume critique authored in the 1960s when student activism was boiling over on campuses here and abroad, portrayed me as an apologist for the laissez-faire world of markets where dog eats dog, a veritable running jackal of capitalism.

Each cold wind imparts a useful lesson, and I learned to write with special care wherever controversial matters were concerned. It was certainly not that I was perfect in all things. Rather, it was that I could only gain by leaning over backward to state fairly the arguments against the positions popular in mainstream economics.

And by dealing carefully and fully with the contending schools within the mainstream, the work kept its representative status as a reference source book. Even Soviet Russia had felt a translation was mandatory, and within a month the entire supply of translated copies had been exhausted. (Experts tell me that in Stalin’s day my book was kept on the special reserve shelf in the library, along with books on sex, forbidden to all but the specially licensed readers.) In the post-Cold War era, new translations have been authorized in Hungary, the Czech Republic, Croatia, Bosnia, Serbia, Romania, and other Eastern European countries as well as in China, Japan, Vietnam, and two-score other countries.

The Ever-Young Child

Just as a child takes on an individual identity distinct from a parent’s, so it was with the *Economics*. At first I was in command of it; later it took over in its

own right and came to be in charge of me. As the years passed, my hair turned from blond to brown and then to gray. But like the portrait of Dorian Gray, which never grew old, *Economics* remained forever 21. Its cover turned from green to blue and from brown to black; and now it turns to gold. Aided by hundreds of letters and suggestions to the author from students and teachers, the economics inside the covers evolved and developed. A historian of mainstream economic doctrines, like a paleontologist who studies the bones and fossils in different layers of the earth, could date the ebb and flow of ideas by analyzing how Edition 1 was revised to Edition 2 and, eventually, to Edition 16.

And so it went. Hard, hard work—but ever so rewarding. Finally came the day when the call of tennis was too strong to be denied. To McGraw-Hill I said: “I’ve paid my dues. Let others carry on as I enjoy the good life of an emeritus professor, cultivating the researches that interest me most.” McGraw-Hill had a ready answer: “Let us find you a coauthor. We’ll make a list of congenial economists whose competence and views you admire.” And so the search for the perfect William Nordhaus began.

Yale is only 150 miles from MIT, and it was there that the real Nordhaus was to be found. It only helped that Bill had earned his Ph.D. at MIT. And in the days since then he has won his spurs serving on the President’s Council of Economic Advisers and doing tours of duty in Cambridge (England), Delhi, and Vienna. Like Gilbert and Sullivan or Rogers and Hart, we turned out to be a most congenial team.

And so, as in the classic tales, we have lived happily ever after. What matters is that the book stays young, pointing to where the mainstream of economics will be flowing.

Science or Art?

Why has economics become in most colleges one of the largest elective courses? The reasons are many. Economics deals with the real life around us. On the job. At the store. When inflation comes, it hits us all. When recession strikes, the tide goes out for all the boats. And the early bird that seeks the worm needs to know about supply and demand. The same goes for the senior citizen constrained to live on a limited pension and for the young idealist determined to improve and reform society.

Good sense economics is not all obvious. The common sense you bring with you from home to college will not let you understand why a rich country and a poor country can both gain great benefit from free international trade at the same time. (And your senator won't understand the point either without taking a good course in *comparative advantage*.) On the other hand, *after* you have mastered instruction in so-called microeconomics and macroeconomics, there will remain no mysteries. If it doesn't make good sense, it isn't good economics.

A first course in economics will not make you a master of all its intricate and esoteric topics. But this I can tell you, based upon students' experience everywhere: your best course in economics will be your introductory course. After you have stepped into this new strange garden of ideas, the world will never be quite the same. And when, years from now, you look back on the experience, even what you didn't quite understand at the time will have perceptibly ripened.

Enjoy!

Paul A. Samuelson
Massachusetts Institute of Technology
Cambridge, Massachusetts
1998

PREFACE

1998 marks the fiftieth anniversary of this textbook. Over the last half-century, the economic world has changed enormously. In 1948, most people were living in piles of rubble from World War II, international financial markets were in a state of shock, and much of Eurasia was entering the long despotical night of socialist central planning.

Fifty Years of Economics

Economics at midcentury also lived in a different world. It was contending with the increasing virulence of business cycles, trying to explain depressions and hyperinflations and stock-market crashes, and debating the superiority of socialism and market capitalism.

At century's end, the economic world, and the world of economics, have evolved tremendously. America's total output has quadrupled in the last five decades, and the average real income has doubled during this period. Outside the United States, the changes are even more dramatic. Dozens of countries have rejected the socialist experiment and adopted market systems, and strong economic growth has been experienced in countries as diverse as Ireland, Botswana, and the Philippines. At no time in recorded history have so many enjoyed such a sustained period of economic growth as they have during the Great Peace of 1948–1998.

You might think that prosperity would lead to a declining interest in economic affairs. Paradoxically,

an understanding of the enduring truths of economics has become even more vital in the affairs of people and nations. The United States has grappled with slow growth in living standards and large government budget deficits, even as structural changes in American industries have shaken managers, workers, and entire communities. The world has become increasingly interconnected as computers and communications create an ever-more-competitive global marketplace. Countries like Russia or Poland, which are making the transition from central planning, need a firm understanding of the institutions of a market economy if they are to make a successful transition. At the same time, there is growing concern about international environmental problems and the need to forge agreements to preserve our precious natural heritage. All these fascinating changes are part of the modern drama that we call economics.

Fifty Years of Economics

For half a century, this book has served as the standard-bearer for the teaching of elementary economics in classrooms in America and throughout the world. Each new edition has distilled the best thinking of economists about how markets function and about what society can do to improve people's living standards.

But economics has changed profoundly since the first edition of this text appeared in 1948. Econom-

ics is above all a living and evolving organism. The need to keep *Economics* at the frontier in the rapidly evolving world economy affords the authors an exciting opportunity to present the latest thinking of modern economists and to show how the subject can contribute to a more prosperous world.

Our task in these pages is straightforward: to present a clear, accurate, and interesting introduction to the principles of modern economics and to the institutions of the American and world economy. Our primary goal is to survey economics. In doing this we emphasize the basic economic principle that will endure beyond today's headlines.

THE SIXTEENTH EDITION

Economics is a dynamic science—changing to reflect the shifting trends in economic affairs, in the environment, in the world economy, and in society at large. As economics and the world around it evolve, so does this book. Ten features differentiate this edition from earlier ones:

1. *The Core Truths of Economics.* Often, economics appears to be an endless procession of new puzzles, problems, and difficult dilemmas. But as experienced teachers have learned, there are a few basic concepts that underpin all of economics. Once these basic concepts have been mastered, learning is much quicker and more enjoyable. We have therefore chosen to focus on the central core of economics—on those enduring truths which will be just as important in the twenty-first century as they were in the twentieth. Microeconomic concepts such as scarcity, efficiency, the gains from trade, and the principle of comparative advantage will never lose their central role in economics as long as scarcity itself exists. The use of marginal analysis revolutionizes decision making. Students of macroeconomics must receive a firm grounding in the concepts of aggregate supply and demand and must understand the role of national and international monies. Students will learn the widely accepted theory of economic growth, but they should also understand controversial theories of the business cycle.

2. *Innovation in the Economy.* One of the striking features of the modern economy is the rapidity of innovations in virtually every sector. We

are accustomed to the dizzying speed of invention in computers, where new products and software appear monthly. Nowhere in recorded history do we find such a rapid rate of improvement as has been seen for computers over the last three decades. But other sectors are also witnessing rapid innovation. The pulse of change is rapid virtually everywhere in the modern economy—we run in athletic equipment made of miraculous new materials and relax while listening to crystal-clear audio equipment. Our understanding of economic trends and policies must reflect this rapid change in our societies.

Economics is increasingly attentive to rapid innovation. In macroeconomics, new economic growth theories emphasize the importance of technology, invention, and human capital in the growth process. In microeconomics, we have included a new section on the economics of information, showing how externalities in the production of information and new technologies lead to market failures. A case study of the economics of the Internet explores the dilemmas of pricing information.

3. *Innovation in Economics.* In addition, we emphasize innovations in economics itself. Economists are innovators, and economic ideas can produce tidal waves when they are applied to real-world problems. Among the important innovations studied here is the application of economics to our environmental problems through “emissions trading” plans. Other important economic innovations discussed are improved regulatory mechanisms and radical ideas such as European monetary unification. One of the most influential economic innovations of the last few years involves the measurement of consumer prices. Economists have persuasively argued that better techniques for measuring prices show much more rapid improvement in the quality of goods and services; the striking implication of these analyses is that we may have dramatically underestimated the growth in living standards in recent years.

4. *Small Is Beautiful.* Economics has increased its scope greatly over the last half-century. The flag of economics flies over its traditional territory of the marketplace but also covers the environment, legal studies, statistical and historical methods, art, gender and racial discrimination, and even family life. But at its core, economics is the science of

choice. And this means that we, as the authors, have to choose the most important and enduring issues for this text. In a survey as in a meal, small is beautiful because it is digestible.

Choosing the subjects for this text required many hard choices. To select these topics, we surveyed teachers and leading scholars to determine which ones were most crucial for an informed citizenry and a new generation of economists. We drew up a list of key ideas and said sad farewell to many appendices and sections. At every stage, we asked whether the material was, as best as we could predict, necessary for a student's understanding of the economics of the twenty-first century. Only when a subject passed this test was it included. The result of this campaign is a book that has lost more than one-quarter of its weight in the last two editions. Farming, labor unions, and Marxian economics have been trimmed to make room for environmental economics, information economics, and real business cycles.

5. Policy Issues at Century's End. Each generation of economists finds new challenges to contend with in the attempt to understand the evolving economic policy problems. Three areas that have been at the forefront of economics in the last decade have received expanded treatment in the sixteenth edition. As human societies grow, they begin to overwhelm the environment and ecosystems of the natural world around us. *Environmental economics*, presented in Chapter 18, helps students understand the externalities associated with economic activity and analyzes different approaches to making human economies compatible with natural systems. A second area of growing importance has been *health-care economics*. As humans become more affluent, they naturally pay more attention to their own health and longevity, and the result is a rapidly growing share of national output devoted to health care. But health care poses fundamental economic dilemmas as the principles of equality and universal coverage collide with the fact of scarcity. Chapter 19 analyzes these questions and presents some innovative ideas about how to resolve these dilemmas. A third growing area is international economics. A new Chapter 31 is devoted to *open-economy macroeconomics*, which studies the behavior of our economy when it is part of a larger world economy. Our treatment of international economics has been expanded and integrated

into every section of the text. In addition, we have reorganized the last part of the book to emphasize the major issues in the international arena.

6. The Incredible Shrinking Globe. A century ago, the leading military strategist of the age, Captain A. T. Mahan, declared in his important book *The Influence of Sea Power on History*: "Whether they will or no, Americans must now begin to look outward." President Bill Clinton echoed these words when he wrote about economic affairs, "There is simply no way to close our borders and return to the insular days. To try to do so would be an exercise in futility, doomed not only to fail but to lower living standards in the process." Americans are learning that no nation is an island. Immigration and international trade have profound effects on the goods that are available, the prices we pay, and the wages we earn. Labor economists have found that the surge of uneducated immigrants over the last two decades has been an important contributor to the declining real wages of unskilled workers. Development economists have found striking results regarding the impact of economic openness on economic growth. No complete understanding of modern economics is possible without a thorough grounding in the world economy. The sixteenth edition continues to increase the material devoted to international economics and the interaction between international trade and domestic economic events.

7. Advances in Modern Macroeconomics. One of the major obstacles to understanding modern economics is the proliferation of contesting schools of macroeconomics. Teachers often wonder how students can understand the subject when macroeconomists themselves are so divided. While many fret about the divisiveness of modern macroeconomics, we think it is a sign of health and prefer lively debate to complacent consensus.

The sixteenth edition analyzes all major schools of modern macroeconomics within the clear organizing synthesis of aggregate supply and demand. We show how macroeconomics of the Keynesian, old and new classical, supply-side, and monetarist varieties can be understood as emphasizing different aspects of expectations, market clearing, and aggregate demand. Each school is clearly presented and compared with its competitors in a balanced and

evenhanded way. For each, the empirical evidence is presented and evaluated. The major schools are presented in Chapter 32, "The Warring Schools of Macroeconomics." But we also emphasize the importance of the *policy implications* of the different approaches. These questions are addressed in a completely reorganized Chapter 33 called "Policies for Growth and Stability," which examines the role of budget deficits and considers such issues as rules versus discretion.

Although much macroeconomic combat is devoted to arguing about the sources of the business cycle, one of the major recent developments in economics has been the resurgence of attention to the forces underlying long-run economic growth. Economists are increasingly examining the determinants of long-run economic growth, the sources of the slowdown in productivity growth, and the generation of innovation and new technological knowledge. Putting economic growth front and center is necessary if students are to understand modern debates about the role of government debt and deficits. The sixteenth edition reflects this revival by synthesizing growth theories and findings into the central section on macroeconomics. We include growth theory as an integral part of aggregate supply and potential output and have revised and moved the chapter on economic development to follow the material on economic-growth theory.

8. Triumph of the Market. One leitmotif in this edition is what we call "rediscovery of the market." All around the world, nations are discovering the power of the market as a tool for allocating resources. In 1990, Poland embarked on a grand experiment of undergoing "shock therapy" by introducing markets into much of its economy. Russia started down the road by liberalizing prices in 1991 but seemed to take one step backwards for every two steps forward. Nowhere was the transition painless. Virtually every country found that the road to the market was filled with obstacles such as raging inflation, high unemployment, and sharp declines in real wages and output. But by 1997, signs of recovery

were found in those transition economies that had moved decisively.

The market was rediscovered in market economies as well. Many countries deregulated industries or privatized industries that had been in the public sectors. The results were generally favorable as productivity rose and prices fell in those sectors. Countries were applying market principles to novel areas, for example, by allowing pollution permits to be bought and sold or auctioning off the radio spectrum. These topics are part of the sixteenth edition's analysis of how market economies promote efficiency but also of the need for limited public controls.

9. Emphasis on History and Policy. Students study economics to understand the rapidly changing world around them. For this reason, economics is at its core an empirical science. It first aims to explain the world around us and then helps us devise economic policies, based on sound economic principles, that can enhance the living standards of people at home and abroad.

Drawing upon history, economic chronicles, and the experience of the authors, the sixteenth edition continues to emphasize the use of case studies and empirical evidence to illustrate economic theories. The rediscovery of the market is made vivid when we examine how central planning failed or the way the East Asian economies have grown so rapidly. The dilemmas involved in combating poverty become real when we understand the 1996 welfare reforms or the problems of the current health-care system. Our appreciation of macroeconomic analysis increases when we see how government deficits in the 1980s lowered national saving and slowed capital accumulation in the United States or when we examine the promises and pitfalls of the European Monetary Union.

The microeconomic chapters draw upon case studies, economic history, business decisions, and real-world experience to illustrate the fundamental principles. Examples such as the economics of addictive substances, the health-care crisis, the threat of greenhouse warming, the minimum-wage debate, performance regulation, trading pollution permits, and the history of stock markets help bring the theorems of microeconomics to life. Game theory becomes serious—and has striking implications—