新世纪高校经济学英文版教材

公共经济学教程

A Course in Public Economics

[加] 约翰·利奇 (John Leach) 著

A Course in Public Economics

上海财经大学出版社
Shanghai University of Finance & Economics Press

新世纪高校经济学英文版教材

公共经济学教程

A Course in Public Economics

JOHN LEACH

McMaster University, Canada

上海财经大学出版社

Shanghai University of Finance & Economics Press

图书在版编目(CIP)数据

公共经济学教程=A Course in Public Economics/[加]利奇(Leach,J.)著,一上海:上海财经大学出版社,2005.1
新世纪高校经济学英文版教材
ISBN 7-81098-309-1/F·274

Ⅰ.公… Ⅱ.利… Ⅲ.公共经济学-高等学校-教材-英文 Ⅳ.F062.6

中国版本图书馆 CIP 数据核字(2004)第 137450 号

□ 策划编辑 姜 勇
□ 责任编辑 姜 勇
□ 封面设计 周卫民

GONGGONG JINGJIXUE JIAOCHENG
公 共 经 济 学 教 程

[加] 约翰·利奇 (John Leach) 著

上海财经大学出版社出版发行
(上海市武东路 321 号乙 邮编 200434)
网 址:http://www.sufep.com
电子邮箱:webmaster @ sufep.com
全国新华书店经销
上海市印刷七厂一分厂印刷装订
2005 年 1 月第 1 版 2005 年 1 月第 1 次印刷

787mm×1092mm 1/16 27.75 印张 641 千字
印数:0 001—4 000 定价:42.00 元

A Course in Public Economics

A Course in Public Economics explores the central questions of whether or not markets work, and if not, what is to be done about it. The first part of the textbook, which is designed for upper-level undergraduates and first-year graduate students, discusses the two theorems of welfare economics. These theorems show that competitive markets can give rise to socially desirable outcomes, and describe the conditions under which they do so. The second part of the book discusses the kinds of market failure – externalities, public goods, imperfect competition, and asymmetric information – that arise when these conditions are not met. The role of the government in resolving market failures is examined. The limits of government action, especially those arising from asymmetric information, are also investigated. A knowledge of intermediate microeconomics and basic calculus is assumed.

John Leach is Professor of Economics at McMaster University, Hamilton, Ontario, Canada. He has published articles in leading refereed journals such as the *Journal of Political Economy*, the *Journal of Economic Theory*, the *Journal of Public Economics*, the *International Economic Review*, the *Canadian Journal of Economics*, the *Journal of Labor Economics*, *Canadian Public Policy*, and the *Journal of Economic Dynamics and Control*. Professor Leach's current research focuses on tax competition between regions seeking to attract firms by setting favorable rates.

It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self interest.

Adam Smith, in *An Inquiry into the Nature and Causes of the Wealth of Nations, 1776*

Some of us see the Smithian virtues [of competitive markets] as a needle in a haystack ... Others see all the potential sources of market failure as so many fleas on the thick hide of an ox, requiring only an occasional flick of the tail to be brushed away. A hopeless eclectic without any strength of character, like me, has a terrible time of it.

Robert Solow [60], in his presidential address to the American Economic Association, 1979

Resources for Instructors

Additional resources, including the solutions to the textbook problems, are available to instructors using this book in their courses. Information on obtaining access to this material is available at:

www.socsci.mcmaster.ca/leach

Preface

> You will put it in the proper Whitehall prose, scabrous, flat-footed, with much use of the passive, will you not? I may have allowed something approaching enthusiasm to creep in.
>
> Dr. Maturin, in Patrick O'Brian's *The Yellow Admiral*[1]

Do markets work, and if they don't, what should be done about it? This question has been at the center of microeconomics since Adam Smith proposed, in *The Wealth of Nations* (1776), that each individual's self-interested participation in the market system often promotes the greater good of society. Providing a comprehensive answer to this question has been no easy task. The way in which markets work was not fully articulated until Walras outlined the first general equilibrium model in the early 1870s, and the sense in which market outcomes advance society's interests was not defined until Pareto published his major work in 1909. The principles set out by Walras and Pareto formed the basis of a research program that continued into the second half of the twentieth century, culminating in the Arrow–Debreu model of general equilibrium. This model precisely describes the conditions under which free markets yield a socially desirable outcome. These conditions are very restrictive, leading Stiglitz ([63], p. 29) to comment that "in a sense Debreu and Arrow's great achievement was to find the almost singular set of assumptions under which Adam Smith's invisible hand conjecture is correct."

Adam Smith would not have been surprised by this finding. He is often portrayed as an unrelenting advocate of free markets and an opponent of government intervention, but this portrayal is inaccurate. Certainly, he was opposed to some types of government intervention: *The Wealth of Nations* is in large part a criticism of the mercantile system, under which the government conspired with merchants to develop powerful trading monopolies. But he did not believe that the government should never intervene in economic

[1] Published by Harper Collins, 1997.

matters. Indeed, he argued that the government has three essential duties, including

> the duty of erecting and maintaining certain public works and certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain; because the profit could neither repay the expense of any individual or small number of individuals, though it may frequently do much more than repay it to a great society.[2]

John Stuart Mill, writing almost a century later, displayed an equal ambivalence toward free markets. He argued that "*laissez faire*... should be the general practice; every departure from it, unless required by some greater good, is a certain evil," but had little difficulty in identifying justifiable interventions, including the regulation of education.[3]

More than a century after Mill, the attitude of mainstream economists is little changed. They oppose monopoly power. They recognize Smith's "public works" as public goods, or as goods with strong positive externalities, and would agree with his call for government action. They might even find in Mill's rationale for the regulation of education – that the consumer is not able to judge the nature of the commodity – an intimation of modern informational economics. They endorse the market system while remaining aware of its shortcomings.

The issue of whether markets work, and what should be done if they don't, forms the core of public economics. While this book is intended to be a textbook in public economics, it examines only this core issue. It excludes a number of topics normally found in public economics textbooks, such as tax incidence and cost–benefit analysis.

This book is also intended to act as a bridge between two modes of economic analysis. Undergraduate students tend to rely upon graphs and simple verbal arguments. By contrast, graduate students rely heavily on extended logical and mathematical analysis. This kind of analysis is also routinely employed by academic economists, and to a lesser degree, by private and public sector economists. The first kind of analysis is employed at the beginning of the book, but there is an increasing reliance on mathematics thereafter.

Let me emphasize, however, that this is not a book in which sophisticated mathematical tools are either taught or applied. I have assumed that you can do the sort of things that anyone who has survived a university course in calculus should be able to do. Specifically, I have assumed that you can

- calculate the derivatives of functions of one or more variables, and understand the meaning of these derivatives;
- manipulate an equation to isolate a single variable;
- solve a system of simple equations by recursive substitution.

2 This quote is from chapter 9 of book IV of *The Wealth of Nations*. The other duties are maintaining the armed forces and the judiciary.

3 The quote is from chapter 11 of book V of *Principles of Political Economy*. Under *laissez faire* (literally, "let do"), the government does not attempt to constrain individual decisions, especially economic decisions.

I believe that you can learn a great deal about economics by formulating issues as mathematical problems and *applying the skills that you already have* to solve them.

Knowing how to drive a car is quite different from actually driving it: there is no substitute for time behind the wheel. The same thing is true of problem solving. You might know how to calculate a derivative, but that's not the same as knowing when to calculate one and what to do with it when you've got it. I hope that this book will provide you with "time behind the wheel." The chapters are really extended examples of the way in which mathematics can be applied to economic issues. As well, there are questions at the end of the chapters, so you will be able to try your hand at problems that are similar to the ones described in the chapters themselves.

You might be less bothered by the mathematics than by the sheer *length* of the arguments presented here. In most undergraduate texts, a one-page explanation is a long explanation. Here, mathematical models of the economy are developed over several pages and their solutions are described over several more pages. Reading this kind of material requires a great deal of concentration.

A lack of concentration was my problem when, in the first year of graduate school, I began to read articles in academic journals. I eventually adopted the following strategy, and use it still:

1) When I read an article for the first time, I read it relatively quickly. I try to understand the issue that is being addressed and the way in which the author intends to address it. If I come across verbal arguments or bits of mathematics that I don't readily understand, I skip them.
2) I read the article again, more slowly. I check to make sure that I understand the issue, and I try to develop a more detailed understanding of the author's arguments. I try to figure out all of the mathematical bits, but if they are really tough, I skip over them again.
3) If I feel that I have to understand the article completely, I read it a third time. I have a pretty good understanding of it by this time, so I can read it quite quickly, slowing down only in the neighbourhood of the tricky bits that I hadn't understood the last time through. (I find that reading *only* the parts that I hadn't previously understood is generally not a useful practice. It is often the case that the tricky bits are tricky because I haven't entirely understood something earlier in the article – I'm missing a piece of the puzzle. Reading the entire article gives me a chance to pick out the missing piece.)

The virtue of the method is that skipping over is always better than stopping. If you find yourself tempted to give up on any of these chapters, you might give this method a try.

This book emphasizes problem solving at the expense of other things. Specifically,

- It is not *comprehensive.* There is a very large literature on almost every subject covered in this book, and I have largely ignored it. Instead, I have tried to present simple and coherent models from which the principal insights of the literature can be derived.

- It is not *general.* I use simple models, and I almost always use specific functional forms for such things as utility functions and production functions. As a rule, economists prefer general models to very specific models,[4] but general models require a little more mathematical sophistication. More general versions of all of the models presented here can be found elsewhere in the economics literature, and in most cases, their major implications are not significantly different from those of the models presented here.

I hope that I have managed to avoid scabrous and flat-footed prose, and that some evidence of my enthusiasm for this subject has crept in. In any case, I have done what I can. Now it's your turn. Good luck.

I should like to thank Richard Arnott, Neil Bruce, and Dan Usher for their encouragement of this project in its early stages, and my colleagues John Burbidge and Les Robb for carefully reading large parts of the manuscript.

I think that in some ways I have written a better book than I thought I could write. Much of the credit for this happy outcome belongs to the readers chosen by Cambridge University Press. They are David Andolfatto (Simon Fraser University), Richard Arnott (Boston College), Robert Gilles (Virginia Polytechnic Institute and State University), Paul Soederlind (Stockholm School of Economics), Bent Sorensen (State University of New York at Binghamton), and Oved Yosha (Tel Aviv University). I should like to thank them all for their suggestions. Finally, I should like to thank Scott Parris of Cambridge University Press for overseeing this project.

[4] A result proved for one kind of utility function might not hold for other kinds of utility functions. Economists like results that are general (i.e., apply to the greatest possible number of cases) so they prefer to employ general functional forms rather than specific ones in their analysis.

目　　录

图表目录