

Preface

Feedback from users of the First Edition supports our conviction that there is a different, and better, way to introduce beginning students to economics. In its bare bones, the philosophy of this text rests on two pillars: (1) the development and repeated application of a set of core economic principles and (2) an active, student-centred approach to learning.

THE FIRST PILLAR: REPEATED USE OF CORE PRINCIPLES

The best way to teach introductory economics—or to introduce virtually any subject, for that matter—is to expose students to repeated applications of a short list of the core ideas of the discipline. Of course, if we asked a thousand economists to provide their own versions, we would get a thousand different lists. But we suspect that almost all the lists would start from much the same basic problem, that of scarcity, and would use much the same basic principle, that of comparing costs and benefits.



The Scarcity Problem: Although we have boundless needs and wants, the resources available to us are limited. So having more of one good thing usually means having less of another.

The Cost–Benefit Principle: An individual (or a firm or a society) will be better off taking an action if, and only if, the extra benefits from taking the action are greater than the extra costs.

From this basic starting point, five other important principles follow:

The Principle of Relevant Costs: In considering whether to produce or consume more of a good, what matters is the cost of one more unit (marginal cost).

The Principle of Comparative Advantage: Total output is largest when each person (or each country) concentrates on the activities for which his or her opportunity cost is lowest.

The Principle of Increasing Opportunity Cost: In expanding the production of any good, first employ those resources with the lowest opportunity cost. Only when all of the lowest cost resources are employed does it make economic sense to use resources that have higher opportunity costs.

The Efficiency Principle: Economic efficiency occurs when total economic surplus is maximized. Efficiency is an important social goal because, when the economic pie grows larger, everyone can potentially have a larger slice.

The Equilibrium Principle: A market in equilibrium leaves no incentives no unexploited opportunities for individuals but may not exploit all gains achievable through collective action.

Our point is not that this is the best short list, but that the introductory course will be taught most effectively if it begins with a well-articulated short list of some principles, illustrating and applying each principle in many different contexts.

THE SECOND PILLAR: ACTIVE LEARNING

Our second guiding principle has been that active learning by students—“student-centred” learning, in the jargon—is an essential part of an effective learning process. By “learning” we do not mean being able to answer a test question the next day. By the time they reach university, many students have become quite good at quick memorization—and at forgetting “useless stuff” equally rapidly. Even the brightest students never fully internalize a concept unless they actually use it repeatedly. We think it is useful for instructors to ask themselves: “What do I want my students to retain from this course, five, ten, or twenty years from now?” Our reading of research in education is that long-term retention depends on students both seeing the value of a concept and *actively* using it. So, throughout the book we use a number of devices to foster active learning.

1. **Worked Examples.** New ideas and concepts are not simply asserted, as in most books. Instead, they are introduced by means of simple examples, usually numerical, which are developed step by step in the text. These examples display the reasoning process used to reach the economic conclusion or insight, and they provide a model for the student to apply when working exercises and problems.

Show how the billing plan whose graph is in Figure 1A.2 would change if the charge per minute were increased from 20 cents to 40 cents.

EXAMPLE 1A.5

Because the monthly fixed fee is unchanged, the vertical intercept of the new billing plan continues to be 4. But the slope of the new plan, shown in Figure 1A.4, is 0.40, or twice the slope of the original plan. More generally, in the equation $Y = a + bX$, an increase in b makes the slope of the graph of the equation steeper.

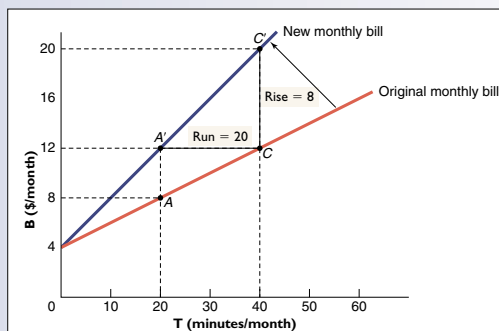


FIGURE 1A.4
The Effect of an Increase in the Charge per Minute
Because the fixed monthly fee continues to be \$4, the vertical intercept of the new plan is the same as that of the original plan. With the new charge per minute of 40 cents, the slope of the billing plan rises from 0.20 to 0.40.

2. **Exercises.** Following many examples, and indeed throughout each chapter, we pose exercises in the running text that challenge the student to test and extend his or her understanding of the ideas being discussed. Answers to these exercises are provided at the end of the chapter, allowing immediate feedback.

Ground beef with high fat content is another example of an inferior good. For health reasons, most people prefer grades of meat with low fat content, and when they do buy high-fat meats it is usually a sign of budgetary pressure. When people in this situation receive higher incomes, they usually switch quickly to leaner grades of meat.

Normal and inferior goods were defined in terms of how their demand curves are affected by an increase in income. How will a decrease in income affect the demand for a normal good? an inferior good?

EXERCISE 3.2

Preferences, or tastes, are another important factor that determines whether a given good will meet the cost-benefit test. Steven Spielberg's films *Jurassic Park* and *The Lost World* appeared to kindle a powerful, if previously latent, preference among children for toy dinosaurs. In the wake of these films, the demand for such toys shifted sharply to the right. And the same children who couldn't find enough dinosaur toys suddenly seemed to lose interest in toy designs involving horses and other pres-

3. **Anecdotes and Illustrations.** Active learning is more likely to take place when students are engaged and motivated. We begin every chapter with an anecdote that motivates the discussion, and we illustrate the ideas with memorable cartoons, photographs, and original line drawings. Most important, we have striven to minimize jargon and engage the student with direct, friendly writing. (For examples, see pages 2, 189, and 304.)
4. **Recap Boxes and Summaries.** To keep students focused on the forest as well as the trees, at strategic points in each chapter we have provided “recap boxes.” Recaps summarize the main ideas of the previous section. The recap boxes are also reiterated by bulleted end-of-chapter summaries, which are designed to review the most important concepts presented in the chapter.



If the Petro Canada station on Quinpool Road raised its gasoline prices by 1 cent/litre, would all its customers shop elsewhere?

RECAP	COMPARATIVE ADVANTAGE AND INTERNATIONAL TRADE
<p>Nations, like individuals, can benefit from exchange, even though one trading partner may be more productive than the other in absolute terms. The greater the difference between domestic opportunity costs and world opportunity costs, the more a nation can potentially benefit from exchange with other nations. But expansions of exchange do not guarantee that each individual citizen will do better. Unskilled workers in high-wage countries may be hurt in the short run by the reduction of barriers to trade with low-wage nations. International trade may also raise issues about the distribution of benefits between trading partners, national sovereignty, and the extent to which an existing pattern of comparative advantage might change over time.</p>	

5. **Core Principles Icon.** Throughout the book, whenever one of the core principles is discussed, a small icon appears in the margin. Each core principle is thereby reinforced many times.

	<p style="text-align: center;">MARGINAL REVENUE FOR THE MONOPOLIST</p> <p>The logic of profit maximization is precisely the same for the monopolist as for the perfectly competitive firm. In both cases, the firm increases output as long as the benefit of doing so exceeds the cost. The calculation of marginal cost is also precisely the same for the monopolist as for the perfectly competitive firm. <i>The only significant difference between the two cases concerns the calculation of marginal revenue.</i></p> <p>As we saw in Chapter 5, marginal revenue for a competitive firm is simply the market price. If that price is \$6, then the marginal benefit of selling an extra unit</p>
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6. **Review Questions and Problems.** Questions for review at the end of each chapter encourage the student to test his or her understanding of the main ideas of the chapter. End-of-chapter problems are carefully crafted to help students internalize and extend core concepts.

ECONOMIC NATURALISM

Economics is all around us, every day. Economics is fascinating because of its power to explain. As part of the active-learning approach, we encourage students to become “economic naturalists,” who employ basic economic principles to understand and explain what they see around them in the “laboratory of life.” Studying biology enables people to observe and marvel at many details of the natural environment that would otherwise have escaped notice. For the naturalist, a walk in a quiet wood becomes an adventure. In much the same way, studying economics can enable students to see the world in which they live and work in a new light. Throughout the text, Economic Naturalist examples show students the relevance of economics to their world—how economics can help them to understand (and perhaps improve) the world they live in. For example:

1. Why do some countries have more problems with littering than others?
2. Why do many movie theatres offer discount tickets to students?
3. Why does a house with a view cost more in Vancouver than in Prince Rupert?
4. Why does Céline Dion earn millions more than singers of only slightly lesser ability?



3.1

ECONOMIC NATURALIST

Why has the consumption of French fries increased substantially during the last 25 years?

Commercial techniques for peeling, cutting, cooking, and storing French fries are much more sophisticated now than they were 25 years ago. Today, raw potatoes are processed into French fries in a few large plants, frozen, and shipped to restaurants and consumers. Once in restaurants and homes, French fries are easily cooked. In the United States, consumption of potatoes has increased by about 30 percent since 1977, most of it because Americans are eating more French fries and potato chips.³

In Figure 3.9, the curves labelled S and D depict the supply and demand curves for French fries during the late 1970s. The curve S' represents the supply curve today. The increase in supply is the result of technological improvements in the production of French fries. As the graph shows, the equilibrium quantity of French fries has increased, and the price has decreased.

5. How does comparative advantage arise and why might countries *not* take advantage of it?
6. Why does London, England, impose a tax of £5 on every vehicle that enters the central business district during business hours?

Once students realize that they can pose and answer such questions on their own, they often are hooked. The excitement of discovery provides its own motivation. A student who tastes this excitement is much more likely to use economics long after completing an introductory course. We cannot claim that every student who uses our text will continuously improve his understanding of economics throughout the rest of his life. However, we do believe that our book will help an instructor come closer to this ideal, and even modest progress toward the ideal is a worthy objective. Our students will journey deep into the twenty-first century. What an instructor accomplishes in the classroom may prove to be the most enduring part of her professional legacy.

WHAT IS NEW AND IMPROVED IN THIS EDITION

All of the chapters in *Principles of Microeconomics* have been extensively revised. In some places, clarity is improved by cutting: we have reduced the text by about thirty pages and the number of chapters from sixteen to fifteen. However, we have also added important topics.

CHAPTER 1 THINKING LIKE AN ECONOMIST

Chapter 1 merges Chapters 1 and 2 of the First Canadian Edition. The opening discussions of opportunity cost and economic models have been streamlined, but the chapter retains the discussion of pitfalls to economic reasoning that was the subject of the old Chapter 2. Since many students are rightly concerned with environmental issues, Chapter 1 contains a new Economic Naturalist case on littering—specifically, the problem of discarded beer cans and abandoned cars. We develop the idea that littering is influenced by the opportunity costs facing people, which in turn are influenced by public policy (sometimes sub-optimally). The new Chapter 1 is about 40 percent shorter than the combined length of Chapters 1 and 2 in the First Canadian Edition.

CHAPTER 2 COMPARATIVE ADVANTAGE: THE BASIS FOR EXCHANGE

A new introductory example stresses that the gains from trade depend on comparative advantage, not absolute advantage. We develop the theme of potential surplus from trade at both the micro and macro levels—and we note the potential importance of dynamic comparative advantage for international trade.

CHAPTER 3 SUPPLY AND DEMAND: AN INTRODUCTION

Supply and Demand are central concepts in economics but they are often introduced using examples that are confined entirely to the sphere of microeconomics. In

this revision, we develop an example of supply and demand in such a market (hamburgers in downtown Toronto)—but we also show how supply and demand can explain foreign exchange rates. Our treatment of foreign-exchange rates builds naturally on the previous chapter's discussion of comparative advantage and international trade, and it provides students with an early introduction to the importance of international trade for the Canadian economy. As well, a new Economic Naturalist case (based on the fast-food industry and the changing technology of producing French fries) explains how advances in technology can shift the supply curve.

CHAPTER 4 DEMAND: THE BENEFIT SIDE OF THE MARKET

The price elasticity of demand is a crucial conceptual tool for analyzing markets, but markets are not all the same—so this chapter now includes empirical estimates of price elasticity of demand for ten goods and services. A new table then summarizes the effect of a price change on total expenditure for different price elasticities of demand. The chapter also includes a new discussion of the income and substitution effects—and a new Economic Naturalist on complementary goods (why do some bars give away peanuts but charge more for their beer?).

CHAPTER 5 PERFECTLY COMPETITIVE SUPPLY: THE COST SIDE OF THE MARKET

Throughout the text a number of recurring examples provide continuity. Picking up on the problem of beer can litter in Chapter 1, we discuss in Chapter 5 the profit-maximization problem facing bottle producers. A thorough revision has improved the display of key tables and graphs, and we now discuss the price elasticity of supply in this chapter instead of jointly with the price elasticity of demand.

CHAPTER 6 EFFICIENCY AND EXCHANGE

The central message of this chapter is the efficiency argument for voluntary exchange. We have clarified the discussion of the loss in economic surplus from price controls, and we use the example of rent controls to show how both the redistributive impact and the magnitude of the loss in surplus arising from controls depend on the elasticity of demand and supply. In our discussion of the dead-weight loss from taxation, a new Economic Naturalist case (Gandhi's march to the sea in 1930 to protest the excise tax on salt) provides an illustration of the incidence of a tax (and its political implications). Denmark's excise tax on automobiles provides a modern day Economic Naturalist case that illustrates the incidence of a tax and its environmental impact.

CHAPTER 7 THE QUEST FOR PROFIT AND THE INVISIBLE HAND

As in other chapters, the presentation has been clarified and streamlined. The chapter now includes an expanded discussion of economies of scale and long-run equilibrium.

CHAPTER 8 MONOPOLY AND OTHER FORMS OF IMPERFECT COMPETITION

Chapter 8 now includes new graphical analyses of monopolistic competition, price discrimination, and the impact of a shift of marginal cost on a monopolist's price and quantity. A new Economic Naturalist case uses monopolistic competition to analyze the differentiation of single malt Scotches. Another new case explores how, in the past, drug companies could segment their Canadian and

American markets, while now, the appearance of Internet pharmacies has reduced their ability to price discriminate. The chapter also includes a new discussion of network economies and updates the discussion of fixed cost and market share in the market for video game consoles.

CHAPTER 9 THINKING STRATEGICALLY

Game theory has had a revolutionary impact on many aspects of economics—we do not think it should be treated as a minor issue, under the general heading of “imperfect competition.” We have rewritten this chapter extensively, updating examples and clarifying the role of norms of behaviour as devices that coordinate behaviour in game solutions.

CHAPTER 10 EXTERNALITIES AND PROPERTY RIGHTS

The new Chapter 10 emphasizes much more clearly the reciprocal nature of externalities and links externalities more tightly with opportunity costs. The chapter also includes a new example concerning the external costs that might arise from production of genetically modified barley. A new Economic Naturalist case discusses the tax of £5 that London imposes on every vehicle that enters the central business district during business hours, thereby showing how prices can be used to deal with congestion externalities.

CHAPTER 11 THE ECONOMICS OF INFORMATION

Abandoned cars were discussed as an environmental problem in Chapter 1, but how can one be sure, when buying a used car, that it will not prove to be a lemon? Chapter 11 now starts with the problem faced by every purchaser of a used car. It shows how that problem illustrates two central issues in the economics of information: what is the optimal amount of information to acquire? When information is inherently asymmetric, how is economic behaviour affected? The chapter analyzes both issues and develops their implications for adverse selection and market structure in a variety of markets.

CHAPTER 12 LABOUR MARKETS

Students are vitally interested in how wages are determined. This chapter shows how the concepts of human capital and marginal productivity can partially explain wage differentials—and an Economic Naturalist (and a short appendix) shows students how to calculate the net present value of their own university education. Building on the analysis of imperfect information in Chapter 11, this chapter also develops the ideas of observationally equivalent workers and statistical discrimination.

CHAPTER 13 THE ECONOMICS OF PUBLIC POLICY

The section on regulation of a natural monopoly includes a new graphical analysis, which compares monopoly, cost-plus, and subsidized marginal cost pricing. The chapter builds on the discussion of externalities in Chapter 10 to analyze effluent charges as a pollution abatement strategy, and it uses the implications of asymmetric information developed in Chapter 11 to analyze health care policy. It also discusses the pricing of public services and the dilemmas surrounding the taxation or regulation of addictive commodities.

CHAPTER 14 PUBLIC GOODS AND TAXATION

All statistics have been updated and the discussion of public goods, publicly supplied private goods, and the regulation of externalities has been clarified.

CHAPTER 15 INCOME DISTRIBUTION

All statistics have been updated and a new discussion of the distribution of wealth included. There are new, clearer presentations of how to measure the intensity of poverty, of the criteria of distributional equity, and of alternative anti-poverty policies.

EVIDENCE MATTERS

Getting students to appreciate the power of economic theory and the importance of a few simple economic principles is a crucial goal of an introductory course, but economics would be a very simple (and dull) subject if all markets could be analyzed in terms of the intersection of two straight lines—a supply curve sloping up at 45 degrees and a demand curve sloping down at 45 degrees. If that were all there was to it, there would be hardly any point in having upper level courses in economics, since all markets would be the same. If all markets were the same, all problems of economic policy could be similarly solved, from the comfort of an armchair—by anybody who had taken the one all-purpose economics course that universities (or high schools) would teach.

However, practising economists know that much of the intellectual fascination of economics comes from the variety of contexts in which economic principles are useful as well as the interplay of theory and data. As instructors, we think that it is a big mistake in an introductory text not to let students in on this interplay, in part because many students (particularly the smarter ones) are turned off by the unrealism of a “one size fits all” approach. Hence, we return continually to the theme that “evidence matters.” For example, we now present in Chapter 4 empirical estimates of the price elasticity of demand for a variety of commodities and we show in Chapter 6 how the costs of rent controls in lost economic surplus depend crucially on the elasticity of demand and supply. Chapters 12 and 15 similarly note how the costs and benefits of minimum wage legislation depend crucially on the empirical magnitude of the unemployment effects of minimum wages. Only data can tell us if any effects are large or small. A key refrain running through the text is to respect the empirical evidence.

THOROUGHLY MODERN MICRO

Pedagogy is extremely important because a text that does not communicate effectively is pointless. But the decision about *what* to teach is at least as important as the decision of *how* to teach it. Because we believe that a central concern of economics is efficiency, we have devoted extensive space to the concept of economic surplus. Introduced in Chapter 1 and applied repeatedly in Chapters 2 to 5, this concept is developed more fully in Chapter 6 than in any leading introductory text. Throughout the book, the concept of economic surplus underlies our ongoing argument in support of economic efficiency as an important social goal. We stress that maximizing economic surplus aids the achievement of *all* goals, both public and private. We also note that if society is to preserve the institutions that enable economic surplus to be maximized, some agreement about the equity of the distribution of economic returns is essential.

Our book also emphasizes, from start to finish, the implications of economic theory for individual decision making. Chapter 1, for example, starts by discussing three widespread and important pitfalls: the tendency to ignore opportunity costs, the tendency not to ignore sunk costs, and the tendency to confuse average and marginal costs and benefits. Chapter 15 concludes by noting how the effectiveness of minimum wages as an anti-poverty policy depends partly on the wage elasticity of demand for labour. Throughout the book, we call students’ attention to situations in which economic theory can help them analyze individual and social choices.

An introductory course in economics should help two types of students: those who will never take another economics course should be able to understand the world around them; and continuing students should be prepared for some of the ideas they will encounter in more advanced courses. We are troubled that many people receive postsecondary degrees without ever having been exposed to ideas like the prisoner's dilemma or the tragedy of the commons. These and other simple applications of game theory have enormous power to explain events in the world. They are also ideal vehicles for illustrating several of the core ideas of economics—ideas that are hugely important in modern courses in microeconomic theory, industrial organization, international trade, etc.

In Chapter 9, we introduce students to the principles of games and strategic behaviour in a highly intuitive way that does not rely on formal mathematics. We develop a limited number of simple principles that have proved entirely accessible to first-year students. In our experience, students are delighted to learn that these few principles can explain, among other things, why urban highways are too crowded, why whales have been hunted to near extinction, why North Atlantic fisheries are near collapse, why the ozone layer is in danger, and why the National Hockey League has a helmet rule. Similarly, Chapter 11 develops some of the key issues in the economics of information. These ideas have had an enormous influence on other areas of economics (e.g., macro, labour, public finance, and development). In Chapter 12 we show how these ideas help to explain discrimination in the labour market, and in Chapter 13 we illustrate their importance for understanding Canada's current debates on public policy in health care.

ORGANIZATION OF TOPICS

Principles of Microeconomics is divided into four parts. Part 1, which also appears in *Principles of Macroeconomics*, is composed of three chapters. Parts 2–4 are composed of four chapters each. Many Canadian examples are used to illustrate microeconomic principles and policies, and some are noted here.

Part 1 introduces students to the most basic ideas of economics, including the core principles that are used throughout the book. Chapter 1 focuses on the ideas of scarcity, tradeoffs, costs, and benefits, including the fundamental notion that the desirability of any action depends on its marginal costs and benefits. Opportunity cost is introduced with a discussion of the appropriate size of a class in principles of economics, which provides an opportunity to discuss how Canadian universities have responded to the scarcity of resources they face. As mentioned earlier, Chapter 1 also examines some common pitfalls for decision-makers, such as the sunk cost fallacy. Following Chapter 1 is a brief appendix that reviews the basic mathematical tools—working with equations, graphs, and tables—students will need for the course. Chapter 2 introduces the ideas of specialization and gains from trade. Finally, Chapter 3 provides an introductory overview of the tools of supply-and-demand analysis—and we emphasize the generality of these tools by showing how they apply both to markets limited to the microeconomic sphere (like the market for hamburgers in Toronto) and to markets that have macroeconomic implications (like markets for foreign exchange). The development of Canada's pulp-and-paper industry, the basis of one of our Economic Naturalist cases, is used to illustrate the principle of dynamic comparative advantage.

Part 2 explores in detail the concepts of demand, supply, economic surplus, and efficiency in the context of pure competition. Building on the introduction to supply and demand in Chapter 3, Chapter 4 shows how demand curves illustrate how people spend their limited income in rational ways. This chapter also discusses price elasticity of demand and its uses. Chapter 5 turns to the sellers' side of the market, showing how upward-sloping supply curves follow from profit-maximizing decisions by producers. Chapter 6 develops the concept of economic surplus and

explains Adam Smith's crucial insight: when demand and supply curves fully reflect social benefits and costs, competitive markets maximize economic surplus. Finally, Chapter 7 clarifies how the quest for profit can drive competitive firms to provide a socially efficient allocation of resources. As well, the discussion of price controls includes an analysis of the National Energy Program of 1980, which was the Trudeau government's response to the oil price shocks of the 1970s.

In our revision of this text, we have paid close attention to the excellent comments/critiques of a panel of referees and early users. Since most Canadian courses in principles of microeconomics develop short-run and long-run cost curves, Chapter 5 includes a section that shows how the law of diminishing marginal returns shapes the graphs of short-run marginal and average costs, and how average fixed cost decreases as output increases. Chapter 7 provides a discussion of how, in a perfectly competitive market, entry and exit cause firms to operate at minimum long-run average cost. Graphs of long-run average cost are included. Some instructors may prefer to de-emphasize cost curves in order to reinforce basic applications of opportunity cost. Chapters 5 and 7 are designed so those instructors who prefer to concentrate on other topics can omit detailed treatments of cost curves.

Part 3 studies markets that depart from the ideal of pure competition. Chapter 8 examines the implications of monopolistic, oligopolistic, and monopolistically competitive markets. When only a few producers exist in a market—and in many other noncompetitive situations—behaviour often takes on a strategic component, so Chapter 9 introduces some elementary tools of game theory, demonstrating their applicability to a variety of economic situations. Chapter 10 considers the effects of externalities. We show that elementary game theory—including the ideas of the prisoner's dilemma, the arms race, and the tragedy of the commons—is quite useful for analyzing many situations with externalities. Chapter 11 examines incomplete and asymmetric information. The examples of the “lemons” problem in the used-car market, and statistical discrimination between young males and females in the market for automobile insurance provide clear evidence of the relevance of economics to issues that our target audience is likely to have experienced.

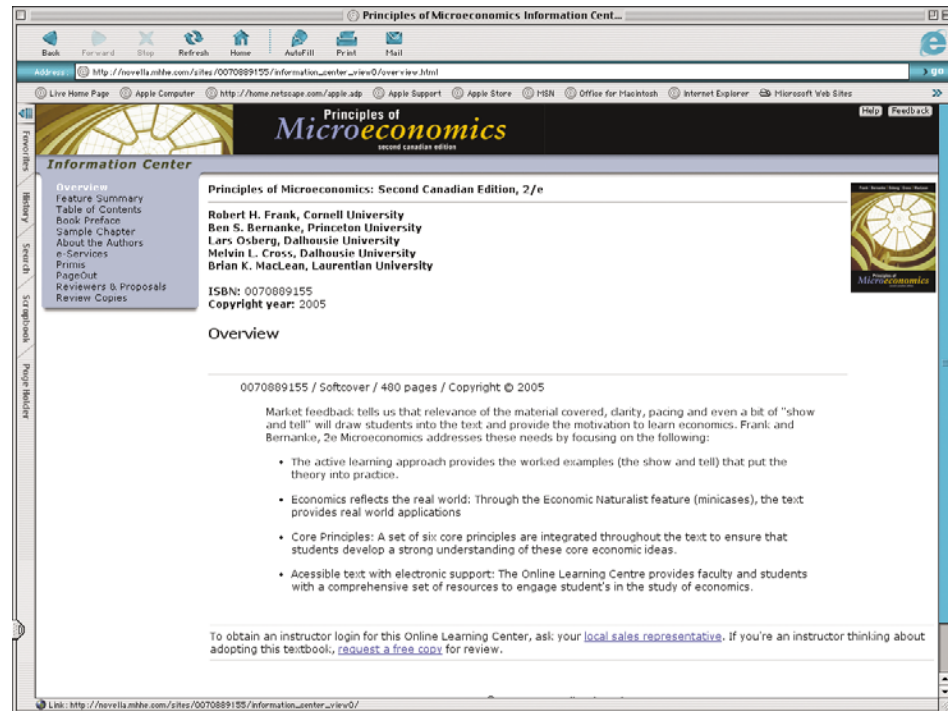
Finally, Part 4, on applied economics and public policy, uses the tools that have been developed in parts 1 through 3 to approach some issues of applied economics and economic policy. In addition, it explores a number of Canadian issues. For example, about 70 percent of employed Canadian women work in nursing and related health occupations, teaching, clerical, administrative, sales, and service positions. Chapter 12 tackles differentials in pay using the tools developed earlier—human capital investment, marginal productivity, imperfect information, and positional externalities—and includes a discussion of occupational segregation and Canadian policies that attempt to deal with it. Chapter 13 shows how economic principles can be used to design economic policies that mitigate the effects of market imperfections, including competition policy as well as policies about health care and the environment. The discussion of public policy includes a comparison of the Canadian and American health care systems. Although many introductory texts gloss over the distinctions between federal, provincial, and municipal governments, Canada is a federal state, with a relatively high degree of decentralization (compared to other federal states); examples in Part 4 present this reality. Chapter 14 discusses public goods and taxation, as well as broader issues concerning the government's role in the economy. It also notes that total program spending by the provinces now greatly exceeds that of the federal government, and we examine the reasons why this pattern has emerged. Chapter 15 considers the benefits and pitfalls of government policies to redistribute income and reduce poverty. As well, we note Canada's success in reducing poverty among senior citizens and we examine the complexities of designing adequate policies for children and for Canadians of working age. In all these chapters we emphasize the importance of differences between markets and how such differences imply that no one public policy can solve all social problems.

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i-LEARNING ADVANTAGE

McGraw-Hill Ryerson offers a unique *i-Service* package designed for Canadian faculty. Our mission is to equip providers of higher education with superior tools and resources required for excellence in teaching. For additional information, visit www.mcgrawhill.ca/highereducation/eservices.

TEACHING, TECHNOLOGY & LEARNING CONFERENCE SERIES

The educational environment has changed tremendously in recent years, and McGraw-Hill Ryerson continues to be committed to helping you acquire the skills you need to succeed in this new milieu. Our innovative Teaching, Technology & Learning Conference Series brings faculty together from across Canada with 3M Teaching Excellence award winners to share teaching and learning best practices in a collaborative and stimulating environment. Pre-conference workshops on general topics, such as teaching large classes and technology integration, will also be offered. We will also work with you at your own institution to customize workshops that best suit the needs of your faculty.

RESEARCH REPORTS INTO MOBILE LEARNING AND STUDENT SUCCESS

These landmark reports, undertaken in conjunction with academic and private sector advisory boards, are the result of research studies into the challenges professors face in helping students succeed and the opportunities that new technology presents to impact teaching and learning.



COMPREHENSIVE TEACHING AND LEARNING PACKAGE

We believe that an ancillary package is most useful if each element in it is part of a well-considered whole. Each member of this book's development team is committed to the quality and cohesiveness of the supplementary package.

FOR THE INSTRUCTOR



The Instructor's Online Learning Centre The OLC at www.mcgrawhill.ca/college/frankbernanke includes a password-protected Web site for Instructors. The site offers downloadable supplements and PageOut, the McGraw-Hill Ryerson course Web site development centre.

Instructor's CD-ROM This CD-ROM contains all of the necessary Instructor Supplements, including:

Instructor's Manual Adapted by Teresa Cyrus of Dalhousie University, this manual is extremely useful for all teachers, but especially for those new to the job. It offers suggestions for using the Study Guides, the Test Bank, and the Economic Naturalist cases. It supplies sample syllabi with assignments, sample exams, and supplemental material. For each chapter, it provides an overview, an outline, teaching objectives, additional Economic Naturalist discussion questions, answers to textbook questions and problems, homework assignments with answers, and sample quizzes with answers.

Computerized Test Banks The test banks (micro and macro), ensure maximum flexibility in test preparation, including the reconfiguring of graphing exercises. The Micro Test Bank is prepared by Chandan Shirvaikar of Red Deer College and the Macro Test Bank by Akhter Faroque of Laurentian University. Collectively, the test banks contain more than 5000 multiple-choice questions categorized by Learning Objective; Learning Level (knowledge, comprehension, application, analysis); Type (graph, calculation, word problem); and Source (textbook, Study Guide, Web, unique).

PowerPoint Slides Adapted by Lars Osberg, Dalhousie University, this package contains dynamic slides of the important illustrations in the textbook, along with detailed, chapter-by-chapter reviews of the important ideas presented in the text. Carefully prepared concept maps relate the different topics in each of the micro and macro texts.



CBC Video Cases Accompanying the texts is a series of video segments drawn from CBC broadcasts of *Undercurrents*, *The National*, *Current Affairs*, and *Venture*. These videos have been chosen to aid students in relating real-world economic issues to the text, and to illuminate key ideas and concepts presented in the text. A set of instructor notes, developed by Kevin Richter, Douglas College, accompanies the segments available at the Instructor's Online Learning Centre. The video segments will be available in a VHS format for use in class and through video streaming on the Online Learning Centre and are accessible by both instructors and students.

ECONX: Online Experiments in Economics Developed at Carnegie Mellon University's Open Learning Initiative, EconX is an innovative collection of online microeconomic experiments and related workbooks that can be used in any principles of microeconomics course. EconX is completely Web based, and students and instructors only need access to the Internet and a Web browser to use it. EconX can be used to supplement a traditional course with minimal effort. Most of the work of administering the experiments and doing the grading is taken care of for you by the software. EconX brings economics alive for students, who will enjoy learning about and testing the economic theory. Students are active participants attempting to make deals with other traders, and the workbook (all online) guides them through the analysis and the economic theory needed to understand the experiment. For information on seeing a demo, please contact your local *i*-Learning Sales Specialist.

FOR THE STUDENT

Study Guide Prepared by David Sabiston (Mount Royal College), the Study Guide [ISBN 007-0951071] provides the following elements: chapter overview, chapter review, knowledge and skills table, and self-test, (key terms with fill-in-the-blanks, multiple choice questions, and short answer problems) with answers.

Student Online Learning Centre Prepared by Sigrid Ewender (Kwantlen University College), this electronic learning aid at www.mcgrawhill.ca/college/frankbernanke is robust enough for any distance-education program. It includes cyber-lectures, quizzes, practice activities, separate pre- and post-tests, interactive graphing exercises, Economic Naturalist exercises, sample exam questions with answers, understanding questions, Internet questions, Internet resource sites, Study To Go, a Math Tutor, EconGraph Toolkit, concepts maps, key terms, chapter outlines, chapter summaries, data update links, CBC Videos and Cases, a searchable glossary and much more!



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