



8th

CANADIAN EDITION

# *Macroeconomics*

McConnell Brue Barbiero

# *Macroeconomics*

8th Canadian Edition

**CAMPBELL R. McCONNELL**

University of Nebraska, Lincoln

**STANLEY L. BRUE**

Pacific Lutheran University

**THOMAS P. BARBIERO**

Ryerson Polytechnic University



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This book is dedicated to Elsa, Marta, Emilia  
and Robert.

# About the Authors

**Campbell R. McConnell** earned his Ph.D. from the University of Iowa after receiving degrees from Cornell College and the University of Illinois. He taught at the University of Nebraska-Lincoln from 1953 until his retirement in 1990. He is also co-author of *Contemporary Labor Economics*, 5th ed. (McGraw-Hill) and has edited readers for the principles and labour economics courses. He is a recipient of both the University of Nebraska Distinguished Teaching Award and the James A. Lake Academic Freedom Award, and is past-president of the Midwest Economics Association. Professor McConnell was awarded an honorary Doctor of Laws degree from Cornell College in 1973 and received its Distinguished Achievement Award in 1994. His primary areas of interest are labour economics and economic education. He has an extensive collection of jazz recordings and enjoys reading jazz history.

**Stanley L. Brue** did his undergraduate work at Augustana College (SD) and received his Ph.D. from the University of Nebraska-Lincoln. He teaches at Pacific Lutheran University, where he has been honoured as a recipient of the Burlington Northern Faculty Achievement Award. He has

also received the national Leavey Award for excellence in economic education. Professor Brue is past president and a current member of the International Executive Board of Omicron Delta Epsilon International Economics Honorary. He is coauthor of *Economic Scenes*, 5th ed. (Prentice-Hall) and *Contemporary Labor Economics*, 5th ed. (McGraw-Hill) and author of *The Evolution of Economic Thought*, 5th ed. (HB/Dryden). For relaxation, he enjoys boating on Puget Sound and skiing trips with his family.

**Thomas P. Barbiero** received his Ph.D. from the University of Toronto after completing undergraduate studies at the same university. He has published papers on the role of the agricultural sector in the industrial development of northern Italy in the period 1861–1914. His research interests in the last few years have turned to economic methodology and the application of economic theory to explain social phenomena. Professor Barbiero spends part of his summer in Florence, where he teaches a European economic history course to Ryerson students. After the course is over, he and his wife search out good food and wine in the Tuscan countryside.

# Preface

Welcome to the eighth Canadian edition of *Macroeconomics* and *Microeconomics*. *Macroeconomics* and *Microeconomics* continue to be leading economics texts in both Canada and the United States; about 5 million students have used this book in the two countries. It has been adapted into Australian, Italian, and Russian editions and translated into French, Spanish, and several other languages.

The resurging Canadian economy, changes in the focus of monetary policy, economic turmoil in Southeast Asia, dynamic new technologies, swings in exchange rates, capitalism in Russia—what an interesting time to teach and learn economics! Clearly, those who understand economic principles will have a distinct advantage in making sense of the economy and successfully participating in it.

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## WHAT'S NEW?

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We thoroughly revised, polished, and updated this edition. (Using a software analogy, this is version 8.0, not 7.1 or 7.2.) The comments of reviewers and survey respondents motivated many of the changes and helped us create a text full of energy and innovation.

### New or “Mostly New” Chapters

One chapter is totally new to this edition, and four other chapters are “mostly new.”

- Chapter 11 (Macroeconomics): Aggregate Demand and Aggregate Supply. We have introduced both the short-run and long-run aggregate supply curves, and connected the

long-run aggregate supply curves with potential GDP.

- Chapter 13 (Microeconomics): Technology, R&D, and Efficiency. This entirely new chapter is an explicit and cohesive discussion of the microeconomics of technological advance. We think that topics such as invention, innovation, R&D decision making, and creative destruction are exciting and simply too important to ignore or set into sidebars, so we devote an entire chapter to them. (To make room for this new content, we consolidated the discussions of monopolistic competition and oligopoly into a single chapter [Chapter 12].)
- Chapter 16 (Macroeconomics): Long-Run Macroeconomic Adjustments. In this revised chapter we use the long-run aggregate demand–aggregate supply model to analyze demand–pull inflation, cost–push inflation, and recession. In the remainder of the chapter we look at other aggregate supply topics such as the Phillips Curve and supply-side economics.
- Chapter 17 (Macroeconomics): Disputes in Macro Theory and Policy. In this nearly new chapter we broaden the ideas developed in Chapter 16 to discuss modern disputes in macro theory and policy. We now use the classic Keynesian discussion of previous editions as a historical backdrop for an examination of modern debates on (1) the sources of macro instability, (2) the extent of “self-correction” in the economy, and (3) the debate over “rules” versus “discretion.” The chapter systematically examines new classical economics and introduces ideas such as misperceptions theory, coordination failures, efficiency wages, and insider-outsider relationships.



- **Chapter 23 (Macroeconomics): Transition Economies: Russia and China.** We added a discussion of China to the previous edition's material on Russia. We look briefly at Marxian ideology and the institutions, goals, and major problems of central planning, and then turn to the collapse of the Soviet economy, the elements of the Russian reform, and contemporary outcomes. Finally, we discuss the main features of market reform in China, including rapid economic growth and remaining difficulties.

## New Pedagogy

- **Quick Quizzes.** We added four multiple-choice questions as Quick Quizzes to each of the 24 Key Graphs. Each quiz relates to the content of the specific Key Graph and is written in the same style and at the same level of difficulty as the test bank questions. The correct answers are provided upside down so students can instantly measure their understanding of key concepts.
- **Ten Key Concepts.** We have introduced the Ten Key Concepts in the first chapter of the text. These Key Concepts will help the student to better organize and understand the core materials of the text. The Ten Key Concepts are divided into three categories:
  1. those pertaining to the individual,
  2. concepts that explain the interaction among individuals; and
  3. concepts that deal with the economy as a whole.

In Chapter 1, each concept is briefly identified with further elaboration of each of the Key Concepts provided as you progress through the text. Within a chapter, you will be notified in the "Big Picture" box each time a Key Concept is going to be discussed and an icon will be used to alert you when a Key Concept is about to be presented.

- **Chapter Learning Objectives.** We set out the learning objectives at the start of each chapter so the student can more easily organize the chapter's main concepts.
- **Internet Questions.** Each chapter contains one or two Web-Based Questions that require students to access specified Internet addresses. These questions help students apply specific

economic concepts and introduce them to relevant *Economics* Internet sites.

## A Building-Block Approach to Macro

With the changes in this edition, we created a fully integrated building-block approach to macro theory, policy, and issues. Specifically, we

- Build the aggregate expenditures model (AE model)
- Derive aggregate demand from the AE model and develop the aggregate demand–aggregate supply model (AD-AS model)
- Introduce both the short-run and long-run AD-AS model.
- Use the AD-AS model to discuss fiscal policy
- Introduce monetary considerations into the AD-AS model
- Use the AD-AS model to discuss monetary policy
- Apply the long-run AD-AS model to macroeconomic instability, modern macroeconomic disputes, and economic growth

## Added Content on Women, Minorities, and Discrimination

In text and vignettes, this edition includes new information on women, minorities, and discrimination. For example, in Chapter 2 we added a Last Word on the rise of women's participation in the labour force. Chapter 16 in *Microeconomics* develops the taste for discrimination model, the idea of statistical discrimination, and the theory of occupational crowding. The new Last Word in Chapter 16 in *Microeconomics* looks at the effects of "blind" auditions on the gender composition of major symphony orchestras.

## Greater Emphasis on the Economic Perspective

Newly organized Chapter 1 now begins with a discussion of scarcity and choice, rational behaviour, and marginal analysis. In Chapter 2 we use the ideas of marginal benefits and marginal costs to determine the optimal position on the production possibilities curve. We continue to reinforce the economic perspective in the remainder of the book in a number of discussions, including those on investment decisions, sunk costs, rational R&D decisions, and immigration policy.

## Added Directness, Reduced Formalism, Extra Human Interest Material

Our line-by-line editing adds directness and reduces formalism, but we were careful to *not* reduce the thoroughness of our explanations. Where needed, the “extra sentence of explanation” remains a distinguishing characteristic of *Macroeconomics* and *Microeconomics*. Students will especially enjoy our new Last Word in *Microeconomics*, Chapter 13, On the Path to the Personal Computer and Internet. All 40 Last Words present interesting applications.

## Other New Topics and Revised Discussions

Along with the changes just discussed, there are many other revisions. Here are just a few examples in *Microeconomics*.

- **Part 1.** *Chapter 1:* Figure 1-1 and its discussion revised; new, livelier examples. *Chapter 2:* Improved discussion of the economic rationale for increasing costs; new applications (land-use controversies, devastation from war, and emerging technologies); consolidated discussion of economic systems. *Chapter 4:* New examples: increased demand for sports-utility vehicles; improved fuel efficiency of aircraft engines; increased demand for salsa; buyout of haddock fishing boats; the decline in the price of pink salmon. *Chapter 5:* New Global Perspective on the Index of Economic Freedom. New discussion of the principal-agent problem; new Global Perspective on government employment as a percentage of total employment for various countries. *Chapter 6:* Improved explanation of the most-favoured-nation clause.
- **Part 2.** *Chapter 7:* Revised discussion (based on new research) of the price elasticity of illegal drugs. *Chapter 8:* Figure 8-1 is now a Key Graph; new Figure 8-2 shows the demand curve derived from a change in product price in the utility-maximizing model. *Chapter 9:* Explicit definitions of marginal, average, and total product now precede the discussion of diminishing returns; substantially revised Table 9-1 and Figure 9-2; new example of scale economies (“extraordinarily large stamping machine”). *Chapter 10:* Figure 10-2 now includes the firm’s total profit curve; the

graphical discussion of the TR-TC approach is confined to profit maximization; section on qualifications of the pure competition model is consolidated. *Chapter 11:* New Table 11-2 lays out the steps for determining profit-maximizing output, price, and profit (if any) in pure monopoly; new graphical comparison of outcomes under pure monopoly and pure competition (Figure 11-6); “discount coupons” added as an example of price discrimination. *Chapter 12:* The discussion of monopolistic competition and oligopoly is now combined into a single chapter; kinked demand model as a Key Graph added; several new examples. *Chapter 13:* New chapter on technology, R&D, and efficiency.

- **Part 3.** *Chapter 15:* Table 15-3 summarizes the differences between substitute resources and complementary resources; updated labour demand examples; revised discussion of least-cost and profit-maximizing combinations of resources. *Chapter 16:* Discussions of real wage stagnation and pitfalls of pay-for-performance plans; rewritten section on labour market imperfections.
- **Part 4.** *Chapter 19:* New hypothetical example (enterprising artist and his public art) to highlight the free-rider problem and public goods characteristics; new discussion of the “tragedy of the commons.” *Chapter 20:* Expanded discussion of pork-barrel politics and bureaucratic inefficiency; new material on VAT and flat tax proposals, including criticisms. *Chapter 22:* We have added this chapter on international trade to *Microeconomics* for the first time.

*Macroeconomics* has the following revisions:

- **Part 2.** *Chapter 7:* Changed terminology relating to Figure 7-2 (from “expanding, static, and declining economy” to “expanding, static, and declining production capacity”); simplification of the explanation of the GDP price index (new Tables 7-5 and 7-6); fuller discussion of the CPI. *Chapter 8:* Improved discussion of structural unemployment; revision of the discussion of Okun’s law; addition to Table 8-2 of unemployment rates by level of education. *Chapter 9:* Figure 9-5 (investment demand) is now a Key Graph; new Figure 9-6 shows shifts in the investment-demand curve; new Figure 9-7 links the real interest rate, the investment-demand curve, and the economy’s



investment schedule. *Chapter 10:* Figure 10-8 on recessionary and inflationary gaps is now a Key Graph. *Chapter 11:* Introduction of both the short-run and long-run aggregate supply curves. *Chapter 12:* Clarified discussion of the crowding-out effect of fiscal policy, including criticisms of the idea.

- **Part 3.** *Chapter 13:* “Unit of account” replaces the term “measure of value”; new section on recent developments in money and banking (globalization of financial markets, and electronic money and smart cards). *Chapter 15:* New Global Perspective 15-1 lists the names (including nicknames) of the central banks of selected nations.
- **Part 4.** *Chapter 16:* Extends the analysis of aggregate supply. *Chapter 17:* “New” chapter contrasts contemporary views on macro theory and policy. *Chapter 18:* Covers economic growth (Chapter 19 in the seventh edition); discusses the weak productivity gains in services; discusses the controversial idea of a “new economy.”
- **Part 5.** *Chapter 20:* Chapter on international trade tightened. *Chapter 21:* Improved explanation of the balance of payments; major consolidation of the discussion of past exchange-rate systems. *Chapter 22:* New world map indicating industrially advanced nations, middle-income developing nations, and low-income developing nations (Figure 22-1); revised discussion of international debt difficulties, including mention of the recent IMF bailouts of the Southeast Asian economies; entirely new policy section on development. *Chapter 23:* Extensively revised chapter now includes discussion of the transition to markets in China as well as in Russia.

## Last Words

We have brought back the Last Words, which were called Applying the Theory in previous editions. Several Last Words are new; others have been revised and updated. We have placed these boxes at the ends of chapters, where they are less likely to interrupt readers’ concentration.

The new Last Word topics are women and production possibilities (Chapter 2); the irrelevancy of sunk costs (*Microeconomics* Chapter 9); maximization of consumer surplus in pure competition (*Microeconomics* Chapter 10); a brief history of the

personal computer and Internet (*Microeconomics* Chapter 15); the impact of blind auditions on the employment of women in major orchestras (*Microeconomics* Chapter 16); enterprise transition to capitalism in Russia (*Macroeconomics* Chapter 23).

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## FUNDAMENTAL GOALS

Although the eighth edition only modestly resembles the first one, our intention remains the same: to introduce beginning economics students to principles essential to understanding the basic economizing problem, specific economic issues, and policy alternatives available for dealing with them. Two fortunate by-products of this objective are an ability to reason accurately and dispassionately about economic matters and a lasting interest in economics. As always, we present the principles and problems of economics in a straightforward, logical fashion. *We continue to stress clarity of presentation, step-by-step organization, and a consistent level of analysis.*

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## DISTINGUISHING FEATURES

- **Comprehensive Explanations at an Appropriate Level.** *Microeconomics* and *Macroeconomics* are comprehensive, analytical, and challenging yet accessible to a wide range of students. Their thoroughness and accessibility enable instructors to select topics for special classroom emphasis with confidence that students can read and comprehend independently other assigned material in the book.
- **Comprehensive Definition of Economics.** Because students must first understand the fundamentals, we devote nearly all of Chapter 2 to a careful statement and development of the economizing problem and an exploration of its implications. This foundation will help put into proper perspective essential economic concepts.
- **Fundamentals of the Market System.** Economies throughout the world are making difficult transitions from planning to markets. Our detailed description of the institutions and operation of the *market system* in Chapter 3 is even more relevant than before. We pay particular attention to property rights, freedom of

enterprise and choice, competition, and the role of profits because these concepts are poorly understood by beginning students.

- **Early Integration of International Economics.** We give the principles and institutions of the global economy early treatment. Chapter 6 examines the growth of world trade, the major participants in world trade, specialization and comparative advantage, the foreign exchange market, tariffs and subsidies, and various trade agreements. This strong introduction to international economics permits “globalization” of later macroeconomics and microeconomics discussions.
- **Early and Extensive Treatment of Government.** Government is an integral component of modern capitalism. This book introduces the economic functions of government early and systematically treats them in Chapter 5. Chapter 19 in *Microeconomics* examines government and market failure in further detail, and Chapter 20 looks at salient facets of public choice theory and public finance. Both *Macroeconomics* and *Microeconomics* include problem- and policy-oriented chapters.
- **Emphasis on Economic Growth.** This edition continues to emphasize economic growth. Chapter 2 uses the production possibilities curve to show the basic ingredients of growth. Chapter 18 in *Macroeconomics* discusses the rate and causes of growth, in addition to some of the controversies surrounding it. Chapter 22 in *Macroeconomics* focuses on the developing countries and the growth obstacles they confront. Chapter 23 in *Macroeconomics* looks at growth in the transition economies of the Soviet Union and China. Our new micro chapter on technology, R&D, and efficiency lays the micro foundation for understanding economic growth.
- **Emphasis on the Theory of the Firm.** We give much attention to microeconomics in general and to the theory of the firm in particular, for two reasons. First, the concepts of microeconomics are difficult for most beginning students; too-brief expositions usually compound these difficulties by raising more questions than they answer. Second, we wanted to couple analysis of the various market structures with a discussion of the impact of each market arrangement on price, output levels, resource allocation, and the rate of technological advance.

- **Emphasis on Economic Issues.** For many students, Part 3 in *Macroeconomics* and Part 4 in *Microeconomics* are where the action is. We sought to guide that action along logical lines through the application of appropriate analytical tools. In these parts we favour inclusiveness; instructors can effectively omit whatever chapters they choose.

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## ORGANIZATION AND CONTENT

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*Microeconomics* and *Macroeconomics* reflect the challenge specific topics and concepts will likely pose for average students. For instance, the theory of the firm and macro output and price-level determination are carefully treated. Here, simplicity is correlated with comprehensiveness, not brevity.

Our experience suggests that in treating each basic topic—aggregate demand and aggregate supply, money and banking, theory of the firm, and international economics—it is desirable to couple analysis with policy. Generally, we use a three-step development of analytical tools: (1) verbal descriptions and illustrations, (2) numerical examples, and (3) graphical presentation based on these numerical illustrations.

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## PEDAGOGICAL AIDS

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*Microeconomics* and *Macroeconomics* have always been student-oriented. The To the Student statement at the beginning of Part 1 details the books’ many pedagogical aids. The eighth edition is also accompanied by a variety of high-quality supplements. The supplements listed here may accompany *Microeconomics* and *Macroeconomics*, *Eighth Canadian Edition*. Please contact your local McGraw-Hill Ryerson representative for details concerning policies, prices, and availability as some restrictions may apply.

## The Supplements

- **Study Guide.** Torben Andersen (Ph.D. Economics, University of Washington), the current Chairperson of Humanities and Social Sciences at Red Deer College, has prepared the eighth Canadian edition of the *Study*

*Guide*, which many students will find indispensable. Each chapter has an introductory statement, a checklist of behavioural objectives, an outline, a list of important terms, fill-in questions, problems and projects, objective questions, and discussion questions. The answers to the end-of-chapter Key Questions appear at the end of the *Study Guide*.

- **Instructor's Resource Manual.** Text author Professor Tom Barbiero of Ryerson Polytechnic University has revised and updated the *Instructor's Resource Manual*. It includes chapter summaries, listings of "what's new" in each chapter, new teaching tips and suggestions, learning objectives, chapter outlines, data and visual aid sources with suggestions for classroom use, and questions and problems. Answers to the text's end-of-chapter Key Questions are also included.

## Computerized Test Banks

- **Test Bank I.** Completely Canadianized, this test bank includes more than 5,000 questions, most of them written by the text authors.

Also available:

- **Test Bank II.** Written by William Walstad, one of the world's foremost experts on economic education, this U.S. test bank contains more than 5,000 questions. All Test Bank II questions are now categorized according to level of difficulty: easy, moderate, or difficult.
- **Test Bank III.** Also prepared by William Walstad, the U.S. Test Bank III contains "constructive response" testing to evaluate student understanding in a manner different from conventional multiple-choice and true-false questions. Suggested answers to the essay and problem questions are included.
- **PowerPoint Presentation.** Sam Fefferman of the Northern Alberta Institute of Technology has created our PowerPoint slides.
- **Student Software.** The U.S. edition of DiscoverEcon is available for *Microeconomics* and *Macroeconomics*. This menu-driven software, which was developed by Gerald Nelson at the University of Illinois, gives students a complete tutorial linked to the text. Each chapter features two essay questions and a multiple-choice test. Whenever relevant, interactive graphing problems let students observe how

the economic picture is altered when they select different data.

On the Web:

- **Online Learning Centre**
- **Internet Book Site**
- **McGraw-Hill Ryerson Web Communities**  
A dynamic Web site of resources, information, ideas, and opportunities, from Canadian faculty—for Canadian faculty. Instructors have the opportunity to use the Web communities to exchange ideas, news, issues, and insights on an ongoing basis. Content may include such topics as:
  - Current Events
  - Downloadables
  - Job Postings
  - Web Links
  - Lecture Suggestions
  - Site News

All linked to this text on a chapter-by-chapter basis!

Almost instantly, current issues can be connected to this text, improving the link between theory and practice. Classroom presentations and assignments will be enhanced by this access to the most up-to-date and relevant information related to what's being taught.

Contact your McGraw-Hill Ryerson representative for more information.

## ACKNOWLEDGEMENTS

The publication of this eighth edition will extend the life of *Macroeconomics* well into its second decade. The acceptance of the parent text, *Economics*, which was generous from the outset, has expanded with each edition. This gracious reception has no doubt been fostered by the many teachers and students who have been kind enough to provide their suggestions and criticisms.

Our colleagues at the University of Nebraska-Lincoln, Pacific Lutheran University, and Ryerson Polytechnic University have generously shared knowledge of their specialties with us and have provided encouragement. We are especially indebted to Ryerson professors John Hughes, David Cape, Dagmar Rajagopal, Leo Michelis, Ingrid Bryan, Tom Tushingham, and Mark Lovewell, who

have been most helpful in offsetting our comparative ignorance in their areas of specialty.

As indicated, the previous editions have benefited from a number of perceptive reviews. In both quality and quantity, they provided the richest possible source of suggestions for this revision. We wish to thank the following instructors who participated in the formal review process:

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M. Dore	Brock University
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S. Law	University of New Brunswick
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Campbell R. McConnell  
Stanley L. Brue  
Thomas P. Barbiero

# Economics on the World Wide Web

## Part 1

**Bob Parks' A Random Walk Around Economics on the Net** [wuecon.wustl.edu/~bob/econwalknet.html](http://wuecon.wustl.edu/~bob/econwalknet.html)  
**NetEc** [netec.wustl.edu/local/NetEc.html](http://netec.wustl.edu/local/NetEc.html)  
**Resources for Economists on the Internet** [econwpa.wustl.edu/EconFAQ/EconFAQ.html](http://econwpa.wustl.edu/EconFAQ/EconFAQ.html)  
**Dismal Sciences** [www.dismal.com/](http://www.dismal.com/)  
**The Mining Company** [economics.miningco.com/](http://economics.miningco.com/)  
**Classroom Expernomics** [www.marietta.edu/~delemeeg/exprenom.html](http://www.marietta.edu/~delemeeg/exprenom.html)  
**Computer Aided Instruction in Economics** [userwww.sfsu.edu/~bjblecha/cai.htm](http://userwww.sfsu.edu/~bjblecha/cai.htm)  
**Economic Education, EcEdWeb** <http://ecedweb.unomaha.edu/>  
**Econ Teaching Resources** [woodrow.mpls.frb.fed.us/econed/class/econsite.html](http://woodrow.mpls.frb.fed.us/econed/class/econsite.html)  
**AmosWorld** [amos.bus.okstate.edu/](http://amos.bus.okstate.edu/)  
**Economics Working Paper Archive (EconWPA)** [econwpa.wustl.edu/wpawelcome.html](http://econwpa.wustl.edu/wpawelcome.html)  
**Journal of Economic Literature and EconLit (JEL)** [www.econlit.org/](http://www.econlit.org/)  
**CARL's UnCover** [uncweb.carl.org/sci.finance.abstracts](http://uncweb.carl.org/sci.finance.abstracts) [www.public.iastate.edu/~arnie/sci-finance-abstracts.htm](http://www.public.iastate.edu/~arnie/sci-finance-abstracts.htm)  
**Economics Research Network (ERN) (part of SSRN)** [www.ssrn.Com/](http://www.ssrn.Com/)  
**Student Economic Review** [www.bess.tcd.ie/ser.html](http://www.bess.tcd.ie/ser.html)  
**IDEAL (Academic Press)** [www.apnet.com/www/ap/aboutid.htm](http://www.apnet.com/www/ap/aboutid.htm)  
**Applied Economics** [www.chapmanhall.com/ae/](http://www.chapmanhall.com/ae/)  
**B>Quest (Business Quest)** [www.westga.edu/~bquest/](http://www.westga.edu/~bquest/)  
**Roland's Overview of Conferences and Meetings on Economic Theory** [www.wiwiiss.fu-berlin.de/w3/w3bester/roland/econ\\_co.htm](http://www.wiwiiss.fu-berlin.de/w3/w3bester/roland/econ_co.htm)  
**Economics Departments, Institutes and Research Centers in the World (EDIRC)—Associations and Societies** [www.er.uqam.ca/nobel/r14160/economics/assocs.html](http://www.er.uqam.ca/nobel/r14160/economics/assocs.html)  
**American Economic Association (AEA)** [www.vanderbilt.edu/AEA/](http://www.vanderbilt.edu/AEA/)

**History of Economics Society** [cs.muohio.edu/~HisEcSoc/other\\_resources.shtml](http://cs.muohio.edu/~HisEcSoc/other_resources.shtml)  
**History of Economics Internet References** [cfec.vub.ac.be/cfec/hope.htm](http://cfec.vub.ac.be/cfec/hope.htm)  
**Regional Science Association (RSA)** [gopher://olymp.wu-wien.ac.at:70/11/.inst/.iir/.rsa](http://gopher://olymp.wu-wien.ac.at:70/11/.inst/.iir/.rsa)  
**International Association for Feminist Economics** [www.bucknell.edu/~jshackel/iaffe](http://www.bucknell.edu/~jshackel/iaffe)  
**International Economics and Philosophy Society** [www.bath.ac.uk/Centres/Ethical/ieps.htm](http://www.bath.ac.uk/Centres/Ethical/ieps.htm)  
**American Law and Economics Association (ALEA)** [webserver.law.yale.edu/alea/alea.htm](http://webserver.law.yale.edu/alea/alea.htm)  
**Southern Economic Association (SEA)** [bubba.ucc.okstate.edu/economics/journal/south1.html](http://bubba.ucc.okstate.edu/economics/journal/south1.html)  
**Eastern Economic Association** [www.iona.edu/orgs/eea.htm](http://www.iona.edu/orgs/eea.htm)  
**Western Economic Association International** [www.weainternational.org/](http://www.weainternational.org/)  
**National Association of Business Economists (NABE)** [www.nabe.com/](http://www.nabe.com/)  
**Statistics Canada** [www.statcan.ca/](http://www.statcan.ca/)  
**Canadian Economic Association** [www.economics.ca](http://www.economics.ca)  
**Organization for Economic Cooperation and Development (OECD)** [www.oecd.org](http://www.oecd.org)

## Part 2

**Economic Science Association** [www.econlab.arizona.edu/esa/](http://www.econlab.arizona.edu/esa/)  
**Inter-university Consortium for Political and Social Research (ICPSR)** [www.icpsr.umich.edu/](http://www.icpsr.umich.edu/)  
**Centre for Economic Learning and Social Evolution (ELSE)** [ada.econ.ucl.ac.uk/](http://ada.econ.ucl.ac.uk/)  
**Pool Listing Service in Game Theory** [fismat.dima.unige.it/citg/citg.htm](http://fismat.dima.unige.it/citg/citg.htm)  
**Economic Science Laboratory, Univ. of Arizona** [www.econlab.arizona.edu/](http://www.econlab.arizona.edu/)  
**Center for Rationality** [www.ma.huji.ac.il/~ranb](http://www.ma.huji.ac.il/~ranb)  
**The Information Economy (by Hal Varian)** [www.sims.berkeley.edu/resources/infoecon](http://www.sims.berkeley.edu/resources/infoecon)



**Openair-Market Net: The World Wide Guide to Farmers' Markets, Street Markets, Flea Markets and Street Vendors** [www.openair.org/](http://www.openair.org/)  
**Statistics Canada** [www.statcan.ca/](http://www.statcan.ca/)  
**Canada Competition Bureau** [www.strategis.ic.gc.ca](http://www.strategis.ic.gc.ca)

## Part 3

**Model User Group International (CGE Modeling)** [watarts.uwaterloo.ca/~mug/index.html](http://watarts.uwaterloo.ca/~mug/index.html)  
**Communications for a Sustainable Future** [csf.colorado.edu/](http://csf.colorado.edu/)  
**Statistics Canada** [www.statcan.ca](http://www.statcan.ca)  
**Bank of Canada** [www.bank-banque-canada.ca](http://www.bank-banque-canada.ca)

## Parts 4 and 5

**Government Information Sharing Project** [govinfo.kerr.orst.edu/](http://govinfo.kerr.orst.edu/)  
**CIA Publications and Handbooks** [www.odci.gov/cia/publications/pubs.html](http://www.odci.gov/cia/publications/pubs.html)  
**National Transportation Statistics** [www.bts.gov](http://www.bts.gov)  
**Energy Resources Board (DOE)** [www.eia.doe.gov/energy/](http://www.eia.doe.gov/energy/)  
**Integrated Public Use Microdata Sample (IPUMS)** [www.hist.umn.edu/~ipums](http://www.hist.umn.edu/~ipums)  
**International Society for Ecological Economics** [kabar.umd.edu/ISEE/ISEEhome.html](http://kabar.umd.edu/ISEE/ISEEhome.html)  
**Centre for Economic and Social Studies for the Environment (CESSE)** [www.ulb.ac.be/ceese/french/ceese.html](http://www.ulb.ac.be/ceese/french/ceese.html)  
**Getting Around the Planet** [www.olsen.ch/cgi-bin/exmenu/pathfinder/](http://www.olsen.ch/cgi-bin/exmenu/pathfinder/)  
**International Trade & Business WWW Reference Pages** [pacific.commerce.ubc.ca/trade/](http://pacific.commerce.ubc.ca/trade/)

**The Global Trade Analysis Project (GTAP)** [www.agecon.purdue.edu/gtap/index.htm](http://www.agecon.purdue.edu/gtap/index.htm)  
**Global Financial Data** [www.globalfindata.com](http://www.globalfindata.com)  
**QuoteCom Data Service** [www.quote.com/](http://www.quote.com/)  
**Australian Bureau of Statistics** [www.statistics.gov.au/](http://www.statistics.gov.au/)  
**New Zealand Treasury** [www.treasury.govt.nz/](http://www.treasury.govt.nz/)  
**InTechTra's Hong Kong Stocks Reports** [www.asiawind.com/pub/hksr/](http://www.asiawind.com/pub/hksr/)  
**Turkish Economics Page** [www.siu.edu/~itanris/econtr.html](http://www.siu.edu/~itanris/econtr.html)  
**Israel Central Bureau of Statistics** [www.cbs.gov.il/engindex.htm](http://www.cbs.gov.il/engindex.htm)  
**Finnish Society for Economic Research** [www.hkkk.fi/~fecons/](http://www.hkkk.fi/~fecons/)  
**The Research Institute of the Finnish Economy (ETLA)** [www.etla.fi](http://www.etla.fi)  
**Eurostat** [europa.eu.int/eurostat.html](http://europa.eu.int/eurostat.html)  
**European Economic Association** [www.hec.unil.ch/prague/eea/premier.htm](http://www.hec.unil.ch/prague/eea/premier.htm)  
**Euro Internet** [fgr.wu-wien.ac.at/nentwich/euroint2.htm](http://fgr.wu-wien.ac.at/nentwich/euroint2.htm)  
**Central European Regional Research Organization (CERRO)** [gopher://olymp.wu-wien.ac.at:70/11/.cerro.ind](http://gopher://olymp.wu-wien.ac.at:70/11/.cerro.ind)  
**German Federal Statistical Office** [www.statistik-bund.de/e\\_home.htm](http://www.statistik-bund.de/e_home.htm)  
**REESweb: Russian and East European Studies-Business, Economics, and Law Resources** [www.pitt.edu/~cjp/rees.htm](http://www.pitt.edu/~cjp/rees.htm)  
**Statistics Canada** [www.statcan.ca/](http://www.statcan.ca/)  
**Environment Canada** [www.doe.ca](http://www.doe.ca)  
**World Trade Organization (WTO)** [www.wto.org](http://www.wto.org)  
**Revenue Canada** [www.rc.gc.ca](http://www.rc.gc.ca)  
**World bank** [www.worldbank.org/](http://www.worldbank.org/)  
**Organization for Economic Cooperation and Development (OECD)** [www.oecd.org](http://www.oecd.org)



# To the Student

Economics is concerned with efficiency—accomplishing goals using the best methods. Therefore, we offer some brief introductory comments on how to improve your efficiency—and your understanding and grade—in studying economics. Several features of this book will aid your learning.

- **Appendix on graphs** Being comfortable with graphical analysis and a few related quantitative concepts will be a big advantage to you in understanding principles of economics. The appendix to Chapter 1 reviews graphing, line slopes, and linear equations. Be sure not to skip it!
- **The Big Picture** The new Big Picture in each chapter is designed to stimulate interest, state the main objectives, and present an organizational overview of the chapter and its connection with previously covered chapters.
- **Terminology** A significant portion of any introductory course is terminology. To designate key terms, we have put them in boldface type, listed them at the end of each chapter, and provided a glossary of definitions at the end of the book.
- **Reviews** Important things should be said more than once. You will find a chapter summary at the conclusion of every chapter as well as two or three “Quick Reviews” within each chapter. These review statements will help you focus on the essential ideas of each chapter and also to study for exams. If any of these statements is unclear, you should reread the appropriate section of the text.
- **Key Graphs** We have labelled graphs having special relevance as “Key Graphs.” Your instructor may or may not emphasize each of these figures, but pay special attention to those your instructor discusses in class. You can bet there will be exam questions on them!
- **Ten Key Concepts** There are Ten Key Concepts we have identified that will help you to organize the core materials of the text. The Ten Key Concepts are introduced in Chapter 1 and are reinforced throughout the textbook. You will be alerted to the concepts covered in each chapter in “The Big Picture” and an icon will further identify specific coverage in the text.
- **Chapter Learning Objectives** We set out the learning objectives at the start of each chapter so you can more easily organize the chapter’s main concepts.
- **Figure legends** Economics is known for its many graphs. The legends accompanying the diagrams in this book are self-contained analyses of the concepts shown. Study these legends carefully—they are quick synopses of important ideas.
- **Globalization** Each nation functions increasingly in a global economy. To gain appreciation of this wider economic environment, be sure to take a look at the “Global Perspectives,” which compare Canada to other selected nations.
- **The Last Word** While it is tempting to ignore these boxes, doing so is a mistake. Some “Last Word” boxes are revealing applications of economic concepts; some are short case studies; still others present views that contrast with mainstream thinking. All will deepen and broaden your grasp of economics.
- **In the Media** Interesting stories have been selected from the print media that show the real-world application of the economic theory

just learned. Each of these stories ends with a question to test your understanding of the chapter's materials.

- **Questions** A comprehensive list of questions is located at the end of each chapter. The old cliché that you “learn by doing” is very relevant to economics. Use of these questions will enhance your understanding. We designate several of them as “Key Questions” and answer them in the Study Guide. You can immediately turn to these particular questions when they are cited in each chapter, or later after you have read the full chapter.
- **Study Guide** We enthusiastically recommend the *Study Guide* accompanying this text.

This “portable tutor” contains not only a broad sampling of various kinds of questions, but a host of useful learning aids.

You will find in Chapter 1 that economics involves a special way of thinking—a unique approach to analyzing problems. The overriding goal of this book is to help you acquire that skill. If our cooperative efforts—yours, ours, and your instructor’s—are successful, you will be able to comprehend a whole range of economic, social, and political problems that otherwise would have remained murky and elusive.

So much for the pep talk. Let’s get on with the show.



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# Contents

## **PART 1**

### **AN INTRODUCTION TO ECONOMICS AND THE ECONOMY 1**

#### **CHAPTER 1**

##### **The Nature and Method of Economics 3**

###### **Ten Key Concepts to Retain a Lifetime 4**

The Individual 4

Interaction Among Individuals 4

The Economy as a Whole and the Standard  
of Living 5

###### **The Economic Perspective 5**

Scarcity and Choice 5

Rational Behaviour 5

Marginalism: Benefits and Costs 6

###### **Why Study Economics? 6**

Economics for Citizenship 6

Professional and Personal Applications 7

###### **Economic Methodology 7**

Theoretical Economics 8

Deriving Theories 8

Policy Economics 10

###### **Macroeconomics and Microeconomics 11**

Macroeconomics 11

Microeconomics 11

Positive and Normative Economics 11

###### **Pitfalls to Objective Thinking 12**

Biases 12

Loaded Terminology 12

Definitions 12

Fallacy of Composition 12

Causation Fallacies 13

###### **A Look Ahead 13**

###### **In the Media 14**

###### **The Last Word 15**

###### **Chapter Summary 16**

###### **Terms and Concepts 16**

###### **Study Questions 16**

#### **Appendix to Chapter 18**

##### **Graphs and Their Meaning 18**

Construction of a Graph 18

Direct and Inverse Relationships 19

Dependent and Independent Variables 19

Other Things Equal 20

Slope of a Line 20

Vertical Intercept 21

Equation of a Linear Relationship 21

Slope of a Nonlinear Curve 22

##### **Appendix Summary 22**

##### **Appendix Terms and Concepts 23**

##### **Appendix Study Questions 23**

#### **CHAPTER 2**

### **The Economic Problem: Scarcity, Wants, and Choices 25**

##### **The Foundation of Economics 26**

Unlimited Wants 26

Scarce Resources 27

Relative Scarcity 28

##### **Economics: Getting the Most Out of Available Resources 28**

Full Employment: Using Available  
Resources 28

Full Production: Using Resources  
Efficiently 28

Production Possibilities Table 29

Production Possibilities Curve 30

Law of Increasing Opportunity Cost 30

Allocative Efficiency Revisited 31