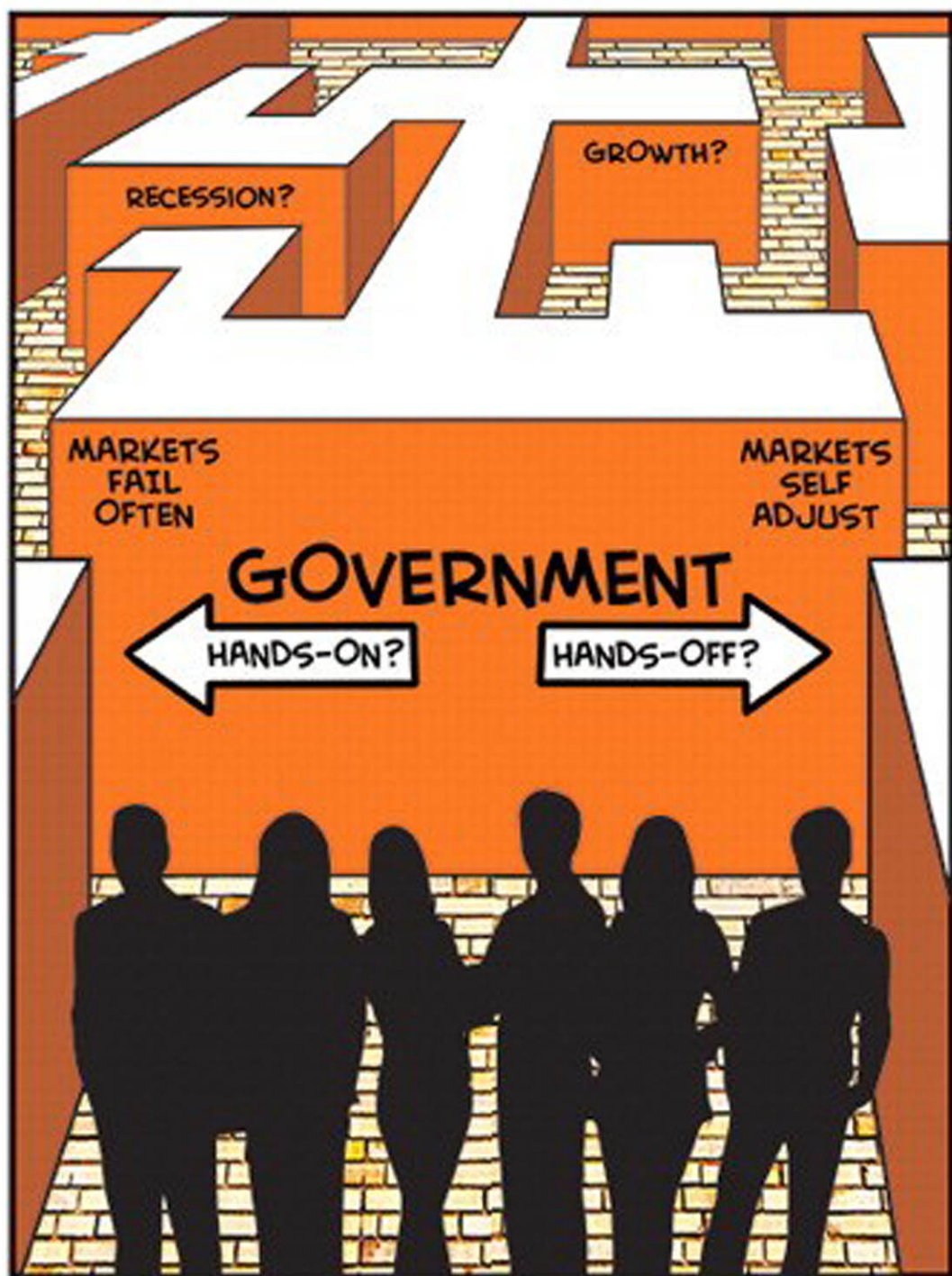


MACROECONOMICS FOR LIFE

SECOND EDITION
AVI J. COHEN



SMART CHOICES FOR ALL?

MACRO

Economics *for* Life

Smart Choices for All?

SECOND EDITION

Avi J. Cohen

*York University
University of Toronto*

PEARSON

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10 9 8 7 6 5 4 3 2 1[WC]

Library and Archives Canada Cataloguing in Publication

Cohen, Avi J., author
Macroeconomics for life: smart choices for all? / Avi J.
Cohen. — Second edition.

Includes index.
ISBN 978-0-13-313584-8 (bound)

1. Macroeconomics. I. Title.

HB172.5.C63 2014 339 C2014-907484-0

PEARSON

ISBN: 978-0-13-313584-8

To Susan — for encouraging me to find my voice.

A.J.C.

About the Author



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Avi J. Cohen is Professor of Economics at York University and at the University of Toronto. He has a PhD from Stanford University; is a Life Fellow of Clare Hall, University of Cambridge; and is past Co-Chair of the Canadian Economics Association Education Committee.

Professor Cohen has been President of the History of Economics Society, a Senior Research Fellow at the Center for the History of Political Economy at Duke University, and has research interests in the history of economics, economic history, and economic education. He has published in *Journal of Economic Perspectives*, *Journal of Economic Education*, *History of Political Economy*, *Journal of the History of Economic Thought*, *Cambridge Journal of Economics*, *Journal of Economic History*, and *Explorations in Economic History*, among other journals and books.

Professor Cohen is co-author of the best-selling *Study Guide* that accompanied the first eight editions of Parkin/Bade's *Economics*. He is the winner of numerous teaching awards, including Canada's most prestigious national award for educational leadership, the 3M Teaching Fellowship.

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Preface to Students

I wrote *Macroeconomics for Life: Smart Choices for All?* to show you how to use economic ideas to make smart choices in life. I focus on the core concepts that you can use regularly to make smart choices in your life as a consumer, as a businessperson, and as an informed citizen.

The question in this book's subtitle—Smart Choices for All?—comes from the question, “Do markets coordinate smart individual choices to produce the products and services we want, or do markets produce undesirable outcomes like unemployment, falling living standards, bankruptcies, financial bubbles, and inflation?”

Economists ask this fundamental macroeconomic question this way:

If left alone by government, do the price mechanisms of market economies adjust quickly to maintain steady growth in living standards, full employment, and stable prices?

There is no single right answer. Economists, politicians, and citizens fall into two main camps in answering this question.

The “Yes—Markets Self-Adjust” camp believes that our market economy generally performs well and that government will only make it worse. They argue government should keep its hands off the economy: the hands-off camp.

The “No—Markets Fail Often” camp has less faith in the market economy's ability to perform consistently well and believes that government must get involved to improve the market's performance. They argue for a hands-on role for government: the hands-on camp.

Your vote helps elect a government whose policy decisions influence our economy's performance—living standards, unemployment, and inflation. Those policies can make the difference between steady growth in living standards or a prolonged recession when jobs are hard to find—in other words, your economic well-being. Do you think policies based on a hands-off or hands-on view of the market economy will make you, and Canada, better off? Learning the core concepts of macroeconomics enables you to make an informed choice about the fundamental macroeconomic question. My goal is to provide you the tools for answering that question in a way that makes most sense *to you*.

The only way for me to know how close I've come to achieving my goal is to hear from you. Let me know what works for you in this book—and, more importantly, what doesn't. You can write to me at avicohen@yorku.ca. In future editions, I will acknowledge by name all students who help improve *Economics for Life*.

Professor Avi J. Cohen
Department of Economics
York University
University of Toronto



Whenever you see this icon, the ideas of the hands-off camp are being discussed.

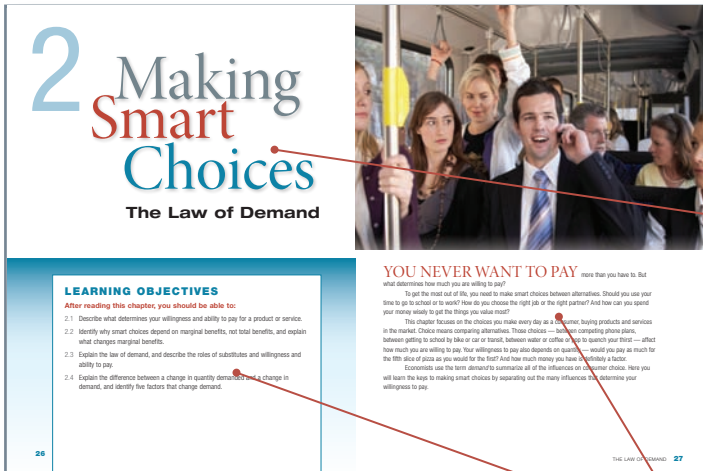


Whenever you see this icon, the ideas of the hands-on camp are being discussed.

Features of This Book

Welcome to *Macroeconomics for Life: Smart Choices for All?* This tour of your textbook is designed to help you use this book effectively and complete your course successfully.

Chapter Opener



Every chapter begins with a two-page spread. These two pages set the theme for the chapter. Like a trailer for a movie, this opening spread gives you a preview of what is coming and prepares you for the “feature presentation.”

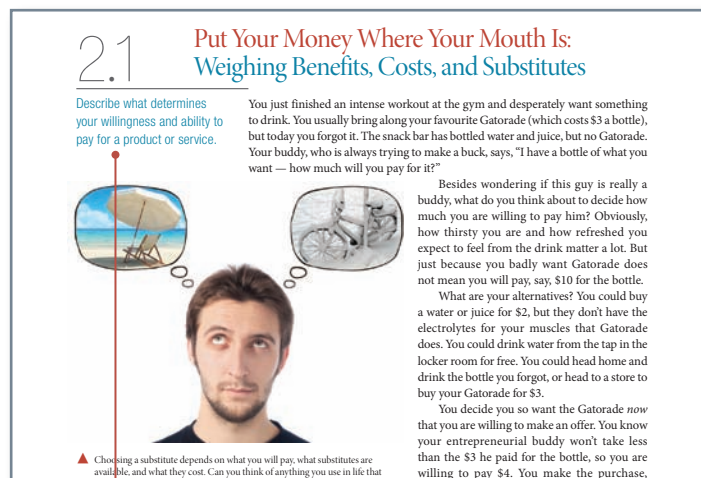
Every chapter has a title and a subtitle. The main title summarizes the content of the chapter in plain language. The subtitle for the chapter is in the language economists use when referring to the concepts.

Every chapter is divided into main sections, and each of these sections is accompanied by a learning objective. The learning objective describes what you will have learned after reading each section. Once you have read the chapter,

you can review these learning objectives to test your understanding of the chapter material.

Every chapter begins with an overview that introduces you to the main ideas and themes in the chapter. This introduction connects the economic principles discussed in the chapter to the choices and decisions you make in your everyday life.

Learning Objectives



Learning objectives are repeated at the beginning of each main section of every chapter and provide an important reminder of what you will learn in each section.

Special Features

badly you want it plays a role. But just as important is what your alternative choices are. There are substitutes for everything — water for Gatorade, a yoga class for a gym workout, long underwear or a move to Florida for winter coats. Substitutes need not be exactly the same product or service. Substitutes just have to basically satisfy the same want. For any choice, what you are willing and able to pay, or to give up, depends on what substitutes are available, and what they cost.

The final factor determining how much you are willing and able to give up is how much you can afford. Are you able to pay the price of the product or service you want? Can you afford to take the time to relax all evening when you have a test tomorrow?

The list of things we want is endless. But the choices we actually make reflect our willingness — and ability — to give up something in exchange. Economists use the term **demand** to describe consumers' willingness and ability to pay for a particular product or service. Demand is *not* just what consumers want. You must put your money (or time) where your mouth is in order to demand a product or service. And those demands, or choices, are smart choices only when expected benefits are greater than opportunity costs.

demand consumers' willingness and ability to pay for a particular product or service

Refresh 2.1

1. What is the difference between wants and demands?
2. What is the key factor that would make you choose to download a song for free rather than pay for it on iTunes? Explain your choice.
3. You have just started at a school that is a 30-minute drive from home or a 90-minute transit ride. Which is your smart choice, taking the transit or buying a car? Justify your choice.

MyEconLab
For answers to these Refresh Questions, visit [MyEconLab](http://MyEconLab.com).

Refresh

The Refresh feature provides three questions that require you to review and apply the concepts in the preceding section. These questions give you the opportunity to assess your understanding of the principles developed in the section. Answers to these questions are located on MyEconLab (www.myeconlab.com) that accompanies this book.

headphones (listening pleasure and blocking out the world) is greater than the additional cost (the \$200 price tag). You are willing and able to pay \$200. Sold! An economist would say that, at the price of \$200, your *quantity demanded* of Beats Solo headphones is one.

Quantity demanded, as we will see, is not the same as *demand*. **Quantity demanded** is the amount you actually plan to buy at a given price, taking into account everything that affects your willingness and ability to pay.

We saw in the previous section that if circumstances change the additional benefit, your choice may change. The second bottle of Gatorade wasn't worth as much as the first, and the value of the headphones would change if you were driving to school in a car with a good sound system instead of riding the bus. But our focus here is not on benefits. Our focus is on *what happens to your buying decision when the price — the additional cost you pay — changes*. In order to focus on the relationship between price and quantity demanded, we will keep all other influences on demand the same.

quantity demanded amount you actually plan to buy at a given price

Key Terms

Key terms are bolded in the text where they first appear, and definitions for key terms are in the margin. A complete list of all key terms and definitions are in the glossary at the end of the book.

Your willingness to pay, determined at the margin by changing circumstances including quantity, is important in determining prices, ranging from low prices for water to high prices for diamonds.

Economics Out There

Coke's Automatic Price Gouging

In the late 1990s, Coca-Cola Co. worked on technology to automatically raise prices in soft-drink vending machines on hot days. Critics — calling the plan “shameful” and a “cynical ploy” to exploit consumers “when they are most susceptible to price gouging” — suggested Coca-Cola should abandon the plan. The company claimed it was fair that the price should rise with demand, and that the machines simply automate that process. Unconvinced, critics warned that the plan would alienate customers, with the reminder that “archrival Pepsi is out there, and you can hardly tell the difference.”

- The public reaction to these variable-price vending machines was so negative that Coca-Cola never introduced them.

- However, the strategy is based on the correct observation that willingness to pay changes with circumstances — the principle of marginal benefit.
- The strategy failed not because the economics were wrong, but because the idea of paying different prices for the same product seemed so unfair — “price gouging.” (However, in Chapter 9 we will look at examples where consumers accept businesses charging different consumers different prices for the same product — cellphone minutes cost providers the same, whether daytime, evening, or weekend. Why are prices different? [Hint: Consumer willingness to pay.]
- Notice the line about Pepsi — substitutes are always available, which limits willingness to pay for any product, regardless of the marginal benefit.

Source: “Coke's Automatic Price Gouging,” *San Francisco Chronicle*, October 29, 1999, p. A22.

Economics Out There

These feature boxes provide real-world examples of the economic principle being discussed. The stories told in Economics Out There help you make connections between the concepts in the chapter and everyday life.

Notes

In the margin, you will see notes that provide a quick explanation of the idea, concept, or principle being discussed in the narrative.

Three Keys Icon

In keeping with the theme of making smart choices, you will also find an icon in the margin beside text that discusses the Three Keys to Smart Choices. The key (or keys) being discussed is indicated by the number on the key icon.

NOTE
Rising prices create two incentives for increased quantity supplied — higher profits and covering higher marginal opportunity costs of production.

quantity supplied the quantity you actually plan to supply at a given price



As your eye goes down the columns in Figure 3.1, note that as the price rises, the quantity supplied increases. (What happens to quantity demanded as price rises?) In general, when prices rise, individuals and businesses devote more of their time or resources to producing or supplying — more money stimulates more quantity supplied. The two reasons for this are the desire for profits (higher prices usually mean higher profits) and the need for a higher price to cover higher marginal opportunity costs — your weekend time is worth more to you than your *World of Warcraft* time.

Quantity supplied, as we will see, is not the same as supply. **Quantity supplied** is a more limited concept — the quantity you actually plan to supply at a given price, taking into account everything that affects your willingness to supply work hours.

Let's take the economist's idea of supply and apply it to Paola's willingness to supply a particular quantity of piercings at a particular price.

Body Piercings or Nail Sets?

Businesses, like consumers, make smart choices based on Key 1 — Choose only when additional benefits are greater than additional *opportunity costs*.

Paola's first choice is *what to produce* with her resources — the labour and equipment she has in her shop. She can do body piercing, and she can also paint fingernails. Let's limit her choices to full body piercings and full sets of fingernails to allow the simple, made-up numbers below.

Paola's Parlour has special tools for piercing and for nail painting. There are four people working (including Paola). All four are equally skilled at piercing (the business started with just piercing), but their fingernail skills differ from expert (Paola) to beginner (Parminder). The table in Figure 3.2 shows the different combinations of fingernail sets and piercings that Paola's Parlour can produce in a day.

Study Guide

At the end of each chapter you will find a study guide designed to assist you in reviewing and testing your understanding of the material in the chapter. The study guide for each chapter includes:

- Chapter Summary
- 15 True/False Questions
- 15 Multiple Choice Questions

Chapter Summary

Organized by section, the summary recaps the main ideas in each chapter. The first item (in red) under each section head is the most important point in that section. All key terms are in bold.

Study Guide

CHAPTER 2 SUMMARY

2.1 Put Your Money Where Your Mouth Is: Weighing Benefits, Costs, and Substitutes

Your willingness to buy a product or service depends on your ability to pay, comparative benefits and costs, and the availability of substitutes.

- **Preferences** — your wants and their intensities.
- **Demand** — consumers' willingness and ability to pay for a particular product or service.
- For any choice, what you are willing to pay or give up depends on the cost and availability of substitutes.

2.2 Living on the Edge: Smart Choices Are Marginal Choices

Key 2 states, "Count only *additional* benefits and *additional* costs." Additional benefits mean marginal benefits — not total benefits — and marginal benefits change with circumstances.

- **Marginal benefit** — the additional benefit from a choice, changing with circumstances.
- Marginal benefit explains the diamond/water paradox. Why do diamonds cost more than water, when water is more valuable for survival? Willingness to pay depends on marginal benefit, not total benefit. Because water is abundant, marginal benefit is low. Because diamonds are scarce, marginal benefit is high.

2.3 Move On When the Price Isn't Right: The Law of Demand

The demand curve combines two forces — switch to substitutes; willingness and ability to pay — determining quantity demanded, and can be read as a demand curve and as a marginal benefit curve.

- **Quantity demanded** — the amount you actually plan to buy at a given price.
- **Market demand** — the sum of demands of all individuals willing and able to buy a particular product or service.

- **Law of demand** — if the price of a product or service rises, quantity demanded decreases, other things remaining the same.
- **Demand curve** — shows the relationship between price and quantity demanded, other things remaining the same.

2.4 Moving the Margins: What Can Change Demand?

Quantity demanded changes only with a change in price. All other influences on consumer choice change demand.

- Demand is a catch-all term summarizing all possible influences on consumers' willingness and ability to pay for a particular product or service.
 - **Increase in demand** — increase in consumers' willingness and ability to pay. Rightward shift of demand curve.
 - **Decrease in demand** — decrease in consumers' willingness and ability to pay. Leftward shift of demand curve.
- Demand changes with changes in preferences, prices of related goods, income, expected future price, and number of consumers. For example, demand increases with:
 - increase in preferences.
 - rise in price of a **substitute** — products or services used in place of each other to satisfy the same want.
 - fall in price of a **complement** — products or services used together to satisfy the same want.
 - increase in income for **normal goods** — products or services you buy more of when your income increases.
 - decrease in income for **inferior goods** — products or services you buy less of when your income increases.
 - rise in expected future prices.
 - increase in number of consumers.

TRUE/FALSE

Circle the correct answer. Solutions to these questions are available at the end of the book and on MyEconLab. You can also visit the MyEconLab Study Plan to access additional questions that will help you master the concepts covered in this chapter.

2.1 Weighing Benefits, Costs, and Substitutes

1. Demand is the same as wants. T F
2. Your willingness to pay for a product depends on what substitutes are available, and what they cost. T F
3. What you can afford is just about money. T F

2.2 Smart Choices Are Marginal Choices

4. Marginal cost is the same as additional cost. T F
5. The flat fee charged at an all-you-can-eat restaurant should not influence how much food you eat once you are seated. T F
6. Marginal benefit always equals average benefit. T F
7. Willingness to pay depends on marginal benefit, not total benefit. T F

2.3 The Law of Demand

8. Quantity demanded is the same as demand. T F

9. If the price of a product or service changes, quantity demanded changes. T F
10. Market demand is the sum of the demands of all individuals. T F
11. Demand curves may be straight lines or curves, but always slope downward to the left. T F

2.4 What Can Change Demand?

12. If your willingness to pay decreases, demand decreases. T F
13. If your ability to pay decreases, demand increases. T F
14. Throughout the month of December, the quantity of video game consoles purchased increases even as the price rises. This violates the law of demand. T F
15. A decrease in income always shifts the demand curve leftward. T F

True/False Questions

There are 15 true/false questions, organized by learning objective. The heading next to each learning objective number gives you the topic of the questions that follow. Each question is answered at the end of the book, with a brief explanation.

MULTIPLE CHOICE

Circle the best answer. Solutions to these questions are available at the end of the book and on MyEconLab. You can also visit the MyEconLab Study Plan to access similar questions that will help you master the concepts covered in this chapter.

2.1 Weighing Benefits, Costs, and Substitutes

1. Economists describe the list of your wants and their intensities as
 - a) demand.
 - b) supply.
 - c) benefit.
 - d) preferences.
2. Costs are
 - a) worth money.
 - b) whatever we are willing to give up.
 - c) the answer to the question "What do we want?"
 - d) whatever we are willing to get.
3. Your preferences measure
 - a) the availability of substitutes.
 - b) how limited your time is.
 - c) the price of a product.
 - d) how badly you want something.

2.2 Smart Choices Are Marginal Choices

4. All-you-can-eat buffet restaurants charge a fixed fee for eating. With each plate that Anna eats, she experiences
 - a) decreasing marginal costs.
 - b) increasing marginal costs.
 - c) decreasing marginal benefits.
 - d) increasing marginal benefits.
5. Thinking like economists, a dating couple should break up when the
 - a) total benefits of dating are greater than the total costs of dating.
 - b) total costs of dating are greater than the total benefits of dating.
 - c) additional benefits of dating are greater than the additional costs of dating.
 - d) additional costs of dating are greater than the additional benefits of dating.

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Multiple Choice Questions

There are 15 multiple choice questions organized by learning objective. The heading next to each learning objective number gives you the topic of the questions that follow. Each question is answered at the end of the book, with a brief explanation.

Using Your Textbook to Achieve Success in Your Course

This textbook is set up for your success. Each element is designed to help you organize, understand, and learn the material efficiently and easily. Here is a four-step guide to being successful in this course.

1: Fully understand the learning objectives

The learning objectives in each chapter are presented in the chapter opener and repeated in the margin at the beginning of each section of the chapter. If you can do what each learning objective asks, you will understand what is most important in each section. These learning objectives are the core of the course. Master these and you have mastered the course. The most important point in each section — a one- to two-sentence summary of what each learning objective asks — appears in red after each section head in the Study Guide's Chapter Summary.

2: Check your understanding of the learning objectives

At the end of each complete section, there are three questions titled Refresh. When you complete a section, take the 5 to 10 minutes required to answer the Refresh questions. These questions are designed for you to assess how well you have mastered the learning objective. They will help you make sure you understand what is important.

Research shows that small quizzes help students get higher grades and retain more of what they learn than spending the same amount of time highlighting and rereading material.

3: Complete the Study Guide material

After finishing the chapter, complete the Study Guide pages — it will save you study time and reinforce what you have mastered. The Study Guide is divided into two main sections, a chapter summary and a set of exam-like questions.

Chapter Summary The Chapter Summary contains the key points you need to know. It is organized using the same major sections as the chapter. The first item in red under each section head is the most important point in that section. The Chapter Summary is an excellent study aid for the night before a test. It's a final check of the ideas — the learning objectives — you have studied.

Exam-Like Questions Do the true/false and multiple-choice questions *without looking at the answers*. This is the single most important tip for profitably using the Study Guide. Struggling for the answers to questions you find challenging is one of the most effective ways to learn. The athletic saying of “No pain, no gain” applies equally to studying. You will learn the most from right answers you have had to struggle for and from your wrong answers and mistakes. Look at the answers only *after* you have attempted all the questions. When you finally do check the answers, be sure to understand where you went wrong and why your right answers are right.

4: Know it before you go on

Master each chapter by taking the above actions *before* moving on. Feel confident that you understand the chapter's objectives. By following this simple four-point plan you will be making a smart choice for learning, and you will do well in the course.

Preface to Instructors

When people ask me what I do, I say, “I teach Economics.” While I am a full professor at two universities, a productive academic with an active research program (past president of the History of Economics Society) and honourable service commitments to my schools, my professional identity is largely tied to my teaching.

As a young assistant professor, the immortality of publishing articles in journals that would forever be in libraries was an important goal. But over time, I came to realize how few people would read those articles, let alone be affected by them. Most of my, and I suspect your, “academic footprint” on this earth will be through our students. Over a career, we teach tens of thousands students.

As economists and teachers, what do we want our lasting “economic footprint” to be? There is a wonderful old *Saturday Night Live* skit by Father Guido Sarducci called “The Five Minute University” (<http://www.youtube.com/watch?v=kO8x8eoU3L4>). Watch it. His premise is to teach in five minutes what an average college or university graduate remembers five years after graduating. For economics, he states it’s the two words “supply and demand.” That’s it.

The serious question behind the skit, the one that motivates this book, is “What do we really want our students to remember of what we teach them in an introductory economics class?”

The vast, vast majority of students in introductory economics never take another economics course. *Economics for Life* is designed to help those students learn what they need to know to be economically literate citizens. If we can teach students the fundamentals of thinking like an economist, they will be equipped to make smarter choices in their lives as consumers, as businesspeople, and as citizens evaluating policies proposed by politicians.

For microeconomics, the essentials are grounded in the Three Keys to Smart Choices, which form the core of *Microeconomics for Life: Smart Choices for You*.

Key 1: Choose only when additional benefits are greater than additional opportunity costs.

Key 2: Count only *additional* benefits and *additional* opportunity costs.

Key 3: Be sure to count *all* additional benefits and costs, including *implicit costs* and *externalities*.

We can teach all topics in micro with those three keys.



Because economists disagree far more about macroeconomics than microeconomics, I incorporated that disagreement into the core of the macro textbook as “**the fundamental macroeconomic question.**”

If left alone by government, do the price mechanisms of market economies adjust quickly to maintain steady growth in living standards, full employment, and stable prices?

Not only do economists disagree over the answer to this question, so do the politicians our students will be voting for, for the rest of their lives. I believe the essential macroeconomic concepts students must know in order to answer that question for themselves — the macroeconomics they need to know *as citizens* — are included in *Macroeconomics for Life: Smart Choices for All?*

Focusing on essential concepts means letting go of many of the more technical concepts and tools that most introductory courses include to prepare students to become economics majors. I consider these exclusions to be a major strength of the textbooks. The excluded concepts detract from the student’s accepting the value of the basic economic analysis that will enhance her decision-making throughout her life. As one strays beyond the core concepts and stories set out in *Economics for Life*, diminishing returns set in rapidly.

It is far more valuable, I believe, for students to understand and apply the core economic concepts well than to be exposed to a wide range of concepts they will not master and therefore will likely soon forget.

Economics for Life is also designed to get students **interested** in economics as a way of thinking that will help them make smarter choices in their lives. Concepts are not presented as theoretical ideas that must be learned in isolation, or as formulas for a set of problems. Instead, each chapter begins with a scenario, and the concepts emerge logically as the narrative unfolds.

Vision (and Graphs) for the Second Edition

The first edition had narratives based on tables of numbers — implicit graphs — but very few graphs. The second edition makes these implicit graphs explicit. The addition of simple demand and supply graphs and production possibilities frontiers fits smoothly into the existing flow of the book’s narrative, providing the students an additional powerful tool for their understanding of the material. Graphs now appear in chapters on demand and supply, rent controls and minimum wages, explanation of choosing output where marginal revenue equals marginal cost, externalities, labour-hiring decisions, and in the macro text, in chapters on aggregate demand and aggregate supply (complete with output gaps and shocks), and the money, loanable funds and foreign exchange markets.

The vision of focusing on the core economic concepts remains the foundation of the second edition. There are still no indifference curves or detailed models of market structure in micro. Although I believe that the many detailed firm cost curves are not core concepts (once students master marginal cost and marginal revenue), for those who want to teach the complete model of perfect competition, there is a concise treatment in the new Appendix to Chapter 9. (Contact me if you would like to discuss my reasons for excising cost curves beyond marginal cost.) In macro there are no derivations of aggregate demand from the aggregate expenditure model, detailed multiplier formulas (whether spending, tax, transfer, or money) or aggregate production functions.



Micro still focuses on the Three Keys for Smart Choices, and the macro narrative focuses on using the expanded circular flow diagram and simple aggregate demand and aggregate supply graphs to explore the question: “How well do markets adjust to provide steady growth in living standards, full employment, and stable prices?” Students are asked throughout the macro text, “Should the government keep its hands off of the economy, or does it need to be hands on?” I try to present sympathetically the strongest case for both the hands-off and hands-on positions.

Join Me!

The second edition of *Economics for Life* retains the focus on the question “What do we really want our students to remember of what we teach them in an introductory economics class?” The focus is on essential economic concepts students need to know to become economically literate citizens, delivered in an engaging, narrative style. **Those concepts are now illustrated with the core graphs that are at the heart of thinking like an economist.** Because fewer topics are covered in more depth, this literacy-targeted approach allows instructors to spend more time in the classroom helping students master the core concepts, supported by active learning exercises, group work, economic experiments, and other forms of engagement that are integrated into both the student exercises and the Instructor’s Manual. Have a look for more details.

What I find exciting about these books is the possibility of helping far more students “get” the benefit of thinking like an economist. If these books succeed in doing what they set out to do — and you and your students will be the judges of that — then your students will be more actively engaged with the material. Students will learn economics in a way that will stay with them — even five years after leaving your classroom.

This brings us back to the question of your “economic footprint.” You will cover fewer topics using *Economics for Life* (the 12 micro or 9 macro chapters can be covered in a semester, with room for discussion), but your students will retain more. If we do our jobs well, after five years, your students will actually be *ahead* of students who were exposed to the full range of topics. Your economic footprint will be larger. You will have produced more students who have better learned the fundamentals of thinking like an economist, and who are making smarter choices in their lives as consumers, as businesspeople, and as citizens evaluating policies proposed by politicians.

You will have succeeded in helping your students learn how to use economics in life.

Avi Cohen
Toronto

Supplements

This textbook is supported by many supplemental materials designed to help instructors quickly customize their courses and enhance student learning.

All of the supplements have been developed and edited by Professor Avi Cohen, the author of the text. Professor Cohen has over 30 years of experience teaching introductory economics, is an award-winning teacher, and is a 3M National Teaching Fellow. He is the author of the *Study Guide* accompanying the first eight editions of Michael Parkin's and Robin Bade's *Economics: Canada in the Global Environment*. He served for many years at York University as Dean's Advisor on Technology Enhanced Learning (TEL), where he developed and ran *do TEL*, a faculty development program for instructors interested in transforming their face-to-face courses to blended or fully online formats.

The following support materials developed by Professor Cohen are available for instructors.

Instructor's Manual

The Instructor's Manual (IM) will assist you in preparing for and teaching this course, whether you are a neophyte teaching the course for the first time, or an experienced instructor looking for ways to enliven your classroom or to adapt to the growing world of fully or partially online courses. The IM is organized by chapter, paralleling the textbook organization.

To make it easy and efficient for you to customize your lectures, each chapter includes an overview and concise summary of the main ideas, concepts and key graphs. You will find class discussion questions and answers to the student Refresh questions for each chapter.

Whether you are teaching 30 students or 500, we provide proven strategies for enhancing the interactivity of your classroom or online environment. Strategies, current discussion topics, economic data, and media stories will be updated regularly on Professor Cohen's teaching blog. See the Instructor's Manual for details.

PowerPoint Presentations

The PowerPoint® slides are a set of lectures based on the textbook content, paralleling the Chapter Summary found in the end-of-chapter Study Guide material. Professor Cohen selected, developed, and edited all of the content in the slides to allow you to be able to prepare and present a focused and manageable lecture without having to wade through an excessive number of slides. You can, of course, still elaborate on each slide's material. The parallels between the slides and the Study Guide's Chapter Summary make it easier for students to connect the textbook material, your classroom presentation, and the Study Guide exercises.

The design of the slides matches the textbook design so students connect more easily the material they have read and the content of your classroom presentation. The font sizes of the slides have been tested for readability from the back of a 500-seat lecture hall as well as on mobile devices. The graphs' slides are dynamic — as you click through them, curves shift and new equilibrium points appear.

Narrated Dynamic Graphs

The PowerPoint graphs, built from the textbook graphic files, are the basis of the Narrated Dynamic Graphs. For each analytical graph in the textbook, there is a short MP4 video. In a voice-over, Professor Cohen talks the student through the meaning of the graph, and traces shifts of curves and changes in outcomes. There is a moving cursor directing students' attention to the portion of the graph being discussed in the narration. These MP4 files, which tell the story of each graph, can be viewed online or downloaded to a student's computer or mobile device.

Pearson TestGen

Professor Cohen created or edited all multiple choice and true/false questions in the testbank. Multiple choice questions have five good choices. "None of the above" and "All of the above" are actually used as correct answers, and sometimes the fifth choice is humorous. Questions are classified by level of difficulty (1 – 3) and as recall or analytical.

This computerized test item file enables instructors to view and edit existing test questions, add questions, generate tests, and print tests in a variety of formats. Powerful search and sort functions make it easy to locate questions and arrange them in any order desired. TestGen also enables instructors to administer tests on a local area network, have the tests graded electronically, and have the results prepared in electronic or printed reports. These questions are also available in MyTest, which is available through MyEconLab at www.myeconlab.com.

MyEconLab

Pearson Canada's online resource, MyEconLab, offers instructors and students all of their resources in one place, written and designed to accompany this text. MyEconLab creates a perfect pedagogical loop that provides not only text-specific assessment and practice problems, but also tutorial support to make sure students learn from their mistakes.

At the core of MyEconLab are the following features:

NEW Dynamic Study Modules: Canadian study modules allow students to work through groups of question and check their understanding of foundational Economics topics. As students work through questions, the Dynamic Study Modules assess their knowledge and only show questions that still require practice. Dynamic Study Modules can be completed online using your computer, tablet, or mobile device.

NEW Learning Catalytics: Learning Catalytics is a "bring your own device" student engagement, assessment, and classroom intelligence system. It allows instructors to engage students in class with a variety of questions types designed to gauge student understanding.

Study Plan: As students work through the Study Plan, they can clearly see which topics they have mastered — and, more importantly, which they need to work on. Each question has been carefully written to match the concepts, language, and focus of the text, so students can get an accurate sense of how well they've understood the chapter content.

Adaptive Assessment: Integrated directly into the MyEconLab Study Plan, Pearson's adaptive assessment is the latest technology for individualized learning and mastery. As students work through each question, they are provided with a custom learning path tailored specifically to the concepts they need to practise and master.

Unlimited Practice: Most Study Plan exercises contain algorithmically generated values to ensure that students get as much practice as they need. Every problem links students to learning resources that further reinforce the concepts they need to master.

Auto-Graded Tests and Assignments: MyEconLab comes with two preloaded Sample Tests for each chapter. Students can use these tests for self-assessment and obtain immediate feedback. Instructors can assign the Sample Tests or use them along with Test Bank questions or their own exercises to create tests or quizzes.

Economics Video Questions: Instructors also have access to a series of video questions that tie current events to key concepts from the text.

Learning Resources: Each assessment contains a link to the eText page that discusses the concept being applied. Students also have access to guided solutions, dynamic narrated graphs, news feeds, and glossary flash cards.

Experiments in MyEconLab: Experiments are a fun and engaging way to promote active learning and mastery of important economic concepts. Pearson's Experiments program is flexible and easy for instructors and students to use. They include single-player experiments that allow students to play against virtual players from anywhere at any time and multiplayer experiments allow you to assign and manage a real-time experiment with your class.

Acknowledgments

Joseph Gladstone, Project Developer, had the original vision for this book. While we have developed that vision collaboratively, Joseph has been the guiding force and, in all but title, a co-author. Without his counsel, wisdom, and vast experience in teaching and publishing, this book would not have come to life.

Ian Howe wrote the Study Guide for the first edition and helped polish all of the original textbook chapters. His humour and vast knowledge of StatsCan data and policy issues continue to enliven many questions at the end of each chapter and in the Instructor's Manual. Andrew Dickens searched out and compiled most data for tables and charts. Deryk Ouseley drew the marvelous illustrations on the covers and others inside that capture the spirit of the *Economics for Life* books.

Much of what is good (I think; you judge) in this book comes from my long association with Robin Bade and Michael Parkin. During more than 20 years as an author to the Study Guide accompanying their *Economics: Canada in the Global Environment*, I have learned so much from their skills as teachers, writers, and economists. Their commitment to clarity, conciseness, and helping students learn has made them both an inspiration and role models. Although this textbook is intended for a slightly different audience, I hope that it will be judged to be in their league.

Many students in both my York and University of Toronto classes caught typos, ambiguities, and offered suggestions for improving the text, including Zaid Faiz, Harpal Hothi, Catherine Huntley, Vadim Slukovich, and Mia Viswanathan. Lior Krimus and Mahsa Nasserli plastered a first edition textbook with dozens of sticky notes containing detailed suggestions for better explaining concepts in ways students would “get it.” The time-machine analogy for explaining marginal revenue and pricing decisions with the one-price rule in Chapter 9 is their idea.

Thanks to Dwayne Benjamin, who invited me to teach the ECO105Y course at the St. George campus, and has steadfastly supported giving the many science, public policy, and international relations students at the University of Toronto a different way to learn introductory economics, while retaining the option to become Economics majors and minors.

The team Pearson assembled — Susan Bindernagel, Richard di Santo, Joel Gladstone, Leigh-Ann Graham, Jurek Konieczny, Suzanne Simpson Millar, Victoria Naik, Mohinder Singh, Karen Townsend, Nurlan Turdaliev, and Claire Varley — have shown me how much hard work and skill go into transforming a manuscript into a product for the now-digital marketplace. I have learned that I am not simply an author, but a “digital content creator!” Thank you all.

Claudine O'Donnell deserves pride-of-place thanks for this second edition, as did Gary Bennett and Allan Reynolds for the first. It is because of their abiding faith and support that the *Economics for Life* books are before you.

Avi J. Cohen
Toronto
September 2014

The author and the publisher thank the reviewers and consultants for their time, ideas, and suggestions that have helped make this textbook better. Their input has been extremely positive and their expertise invaluable in making this new economics book more accessible and useful to both professors and students.

Aurelia Best, Centennial College
Darren Chapman, Fanshawe College
Carol Derksen, Red River College
Paritosh Ghosh, Red Deer College
Jamal Hejazi, University of Ottawa
Randy Hull, Fanshawe College
Sacha Des Rosiers, Dawson College
Gail English, New Brunswick Community College
Agostino Menna, Niagara College of Applied Arts & Technology
John O'Laney, New Brunswick Community College
Stephanie Powers, Red Deer College
Geoffrey Prince, Centennial College
Charles Ramsay, Dawson College
Sheila Ross, Southern Alberta Institute of Technology
John Saba, Champlain Regional College
Patrick Sherlock, Nova Scotia Community College
Sarah Stevens, Georgian College
Nurlan Turdaliev, University of Windsor
Franc A. Weissenhorn, Nova Scotia Community College
Carl Weston, Mohawk College

MACRO

Economics

for
Life

Smart Choices for All?

1 What's in Economics for You?

**Scarcity, Opportunity Cost,
Trade, and Models**

LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- 1.1 Explain scarcity and describe why you must make smart choices among your wants.
- 1.2 Define and describe opportunity cost.
- 1.3 Describe how comparative advantage, specialization, and trade make us all better off.
- 1.4 Explain how models like the circular flow of economic life make smart choices easier.
- 1.5 Differentiate microeconomic and macroeconomic choices, and explain the Three Keys model for smart choices.



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WHAT DO YOU WANT OUT OF LIFE?

Riches? Fame? Love? Adventure? A successful career? To make the world a better place? To live a life that respects the environment? To express your creativity? Happiness? Children? A long and healthy life? All of the above?

Many people believe economics is just about money and business, but economics can help you get what you want out of life.

The title of this book comes from a quote by Nobel Prize–winning author George Bernard Shaw: “Economy is the art of making the most of life.” Economics is partly about getting the most for your money, but it is also about making smart choices generally. I wrote this book because I believe that if you learn a little economics, it will help you make the most of your life, whatever you are after. That same knowledge will also help you better understand the world around you and the choices you face as a citizen.

You don’t need to be trained as an economist to lead a productive and satisfying life. But if you can learn *to think like an economist*, you can get more out of whatever life you choose to lead, and the world will be better for it.

1.1

Are You Getting Enough? Scarcity and Choice

Explain scarcity and describe why you must make smart choices among your wants.

scarcity the problem that arises from our limited money, time, and energy

economics how individuals, businesses, and governments make the best possible choices to get what they want, and how those choices interact in markets

Can you afford to buy everything you want? If not, every dollar you spend involves a choice. If you buy the Xbox One, you might not be able to afford your English textbook. If you treat your friends to a movie, you might have to work an extra shift at your job or give up your weekend camping trip.

It would be great to have enough money to buy everything you want, but it would not eliminate the need to make smart choices. Imagine winning the biggest lottery in the world. You can buy whatever you want for yourself, your family, and your friends. But you still have only 80-some years on this planet (if you are lucky and healthy), only 24 hours in a day, and a limited amount of energy. Do you want to spend the week boarding in Whistler or surfing in Australia? Do you want to spend time raising your kids or exploring the world? Will you go to that third party on New Year's Eve or give in to sleep? Do you want to spend money on yourself, or set up a charitable foundation to help others? Bill Gates, one of the richest people on Earth, has chosen to set up the Bill and Melinda Gates Foundation. With billions of dollars in assets, the Foundation still receives more requests for worthy causes than it has dollars. How does it choose which requests to fund?

Economists call this inability to satisfy all of our wants the problem of **scarcity**. Scarcity arises from our limited money, time, and energy. All mortals, even billionaires, face the problem of scarcity. We all have to make choices about what we will get and what we will give up. Businesses with limited capital must choose between spending more on research or on marketing. Governments must make similar choices in facing the problem of scarcity. Spending more on colleges and universities leaves less to spend on health care. Or if governments try to spend more on all social programs, the higher taxes to pay for them mean less take-home pay for all of us.

Because none of us — individuals, businesses, governments — can ever satisfy all of our wants, smart choices are essential to making the most of our lives.

Economics is about how individuals, businesses, and governments make the best possible choices to get what they want, and how those choices interact in markets.

Refresh 1.1

MyEconLab

For answers to these Refresh Questions, visit MyEconLab.

1. Define scarcity and give one example from your own experience.
2. Write a definition of economics in your own words that includes the word *scarcity*.
3. Social activists argue that materialism is one of the biggest problems with society: If we all wanted less, instead of always wanting more, there would be plenty to go around for everyone. Do you agree with this statement? Why or why not?

Give It Up for Opportunity Cost!

Opportunity Cost

1.2

Scarcity means you must choose, and if you want the most out of what limited money and time you have, you need to make smart choices. A choice is like a fork in the road. You have to compare the alternatives — where does each path take you — and then pick one. You make a smart choice by weighing benefits and costs.

Define and describe opportunity cost.

Choose to Snooze?

What are you going to do with the next hour? Since you are reading this, you must be considering studying as one choice. If you were out far too late last night, or up taking care of a crying baby, sleep might be your alternative choice. If those are your top choices, let's compare benefits of the two paths from this fork. For studying, the benefits are higher marks on your next test, learning something, and (if I have done my job well) perhaps enjoying reading this chapter. For sleep, the benefits are being more alert, more productive, less grumpy, and (if I have done my job poorly) avoiding the pain of reading this chapter.

If you choose the studying path, what is *the cost of your decision*? It is the hour of sleep you give up (with the benefits of rest). And if you choose sleep, the cost is the studying you give up (leading to lower marks).

In weighing the benefits and costs of any decision, we compare what we get from each path with what we give up from the other. For any choice (what we get), its true cost is what we have to give up to get it. The true cost of any choice is what economists call **opportunity cost**: the cost of the best alternative given up.



▲ The true cost of any choice you make is what you must give up to get it.

opportunity cost the cost of the best alternative given up

Opportunity Cost Beats Money Cost

For smart decisions, it turns out that opportunity cost is more important than money cost. Suppose you win a free trip for one to Bermuda that has to be taken the first week in December. What is the money cost of the trip? (This is not a trick question.) Zero — it's free.

But imagine you have a business client in Saskatoon who can meet to sign a million-dollar contract *only* during the first week in December. What is the opportunity cost of your “free” trip to Bermuda? \$1 million. A smart decision to take or not take the trip depends on opportunity cost, not money cost.

Or what if your current significant other lives out of town, and the only time you can get together is during the first week in December? What is the opportunity cost of taking your “free” trip for one? Besides losing out on the benefits of time together, you may be kissing that relationship goodbye.

All choices are forks in the road, and the cost of any path taken is the value of the path you must give up. Because of scarcity, every choice involves a trade-off — to get something, you must give up something else. *To make a smart choice, the value of what you get must be greater than the value of what you give up.* The benefits of a smart choice must outweigh the opportunity costs.

NOTE
Scarcity means every choice involves a trade-off.

Economics *Out There*

Where Have All the Men Gone?

Women make up 60 percent of undergraduate college and university students. Why do women so outnumber men? There are many explanations, from women's liberation to schools rewarding girls' more obedient behaviour and punishing boys' ADD (attention deficit disorder). There is also a simple economic explanation based on opportunity cost.

- Think of going or not going to college or university as a fork in the road.
- Weigh the costs and benefits of each choice. Everyone pays the same tuition and fees, but the benefits given up with each choice are different for women and men.
- More women than men go to college and university because the cost of *not* going is higher for women — men's alternative is higher-paying blue-collar jobs. Women's alternative tends to be lower-paying clerical or retail jobs.

Women with post-secondary education earn 50 to 80 percent more a year than women with only a high-school diploma. Men with the same post-secondary education earn only 25 to 30 percent more a year than men with only a high-school diploma. *The gap in pay* between high-school and post-secondary women is larger than the same gap for men.

Because of the differences in opportunity cost — women who don't go to college or university *give up* a bigger income gain than men do — the rate of return for a college diploma or university degree is 9 percent for women, and only around 6 percent for men. Incentives matter, and people respond to the incentives. For women, it pays more to get a post-secondary education.

incentives rewards and penalties for choices

Incentives Work Since smart choices compare costs and benefits, your decisions will change with changes in costs or benefits. We all respond to **incentives** — rewards and penalties for choices. You are more likely to choose a path that leads to a reward, and avoid one with a penalty. A change in incentives causes a change in choices. If your Saskatoon business deal is worth only \$100 instead of \$1 000 000, you might take the trip to Bermuda. If you were up most of last night, you are more likely to sleep than to study. If you have a test tomorrow instead of next week, you are more likely to study than to sleep.

To make the most out of life and make smart decisions, you must always ask the questions, “What is the opportunity cost of my choice?” and “Do the benefits outweigh the opportunity costs?”

Refresh 1.2

MyEconLab

For answers to these Refresh Questions, visit MyEconLab.

1. What is the opportunity cost of any choice?
2. This weekend, your top choices are going camping with your friends or working extra hours at your part-time job. List three facts (think rewards and penalties) that, if they changed, would influence your decision.
3. Your sister is trying to decide whether to go to college or get a job after high school. What would you advise her to do based only on the money cost of attending college? Based on the opportunity cost of her attending college?

Why Don't You Cook Breakfast?

Gains from Trade

1.3

What did you have for breakfast today? Did you have cereal and orange juice at home, or did you buy coffee and a bagel at Tim Hortons on the way to school? Either way, you made a choice — to make breakfast for yourself, or to buy it from a business. This is the most basic choice you and everyone else makes in trying to do the best you can: Do you yourself produce the products and services you want, or do you earn money at a job and then buy (or trade money for) products and services made by others?

These days, that basic choice sounds crazy. We all work (or hope to) at jobs, earning money by specializing in a particular occupation. We use that money to buy what we want. Even a “homemade” breakfast uses cereal and juice bought at a grocery store. But if you go back only a few hundred years in Canadian history, most Aboriginal peoples and pioneers were largely self-sufficient, making for themselves most of what they needed — hunting and growing their own food, making clothes from animal hides, and building shelters from available resources.

Voluntary Trade

What happened to lead us all away from self-sufficiency toward specializing and trading? The historical answer to that question is complex, but the simple economic answer is that specializing and trading make us better off, so of course people made that basic choice. It's simple self-interest at work.

Our standard of living, in terms of material products and services, is much higher than it was hundreds of years ago in Canada. (What we have done to the environment, which in the past was better than in the present, is another story that I will also explain in terms of self-interest in Chapter 11.) The irony is that *as individuals*, we are hopeless at supporting ourselves compared to our ancestors. Yet *collectively*, our standard of living is much better.

Trade is the key to our prosperity. Trade makes all of us better off. Why? Trade is voluntary. Any time two people make a voluntary trade, each person feels that what they get is of greater value than what they give up. If there weren't mutual benefits, the trade wouldn't happen. But how does trade make us better off?

Bake or Chop? Again, opportunity cost is the key to the mutual benefits from trade. To illustrate, let's take a simple imaginary example of two early Canadians who are each self-sufficient in producing food and shelter.

Jill grows her own wheat to make bread, and chops her own wood for fire and shelter. If she spends an entire month producing only bread, she can make 50 loaves. Alternatively, if she spends all her time chopping wood, she can cut 100 logs. Her monthly choice of how to spend her time looks like the picture in the margin.

Since Jill is self-sufficient, that means she can consume only what she produces herself, so she must divide her time and produce some bread and some wood. The table in Figure 1.1 shows different possible combinations (*A – F*) of bread and wood she can produce, depending on how she divides up her time during the month. From these production possibilities, Jill chooses to produce possibility *D*, 20 loaves of bread and 60 logs of wood. We will get to the graph in a moment.

Describe how comparative advantage, specialization, and trade make us all better off.

NOTE

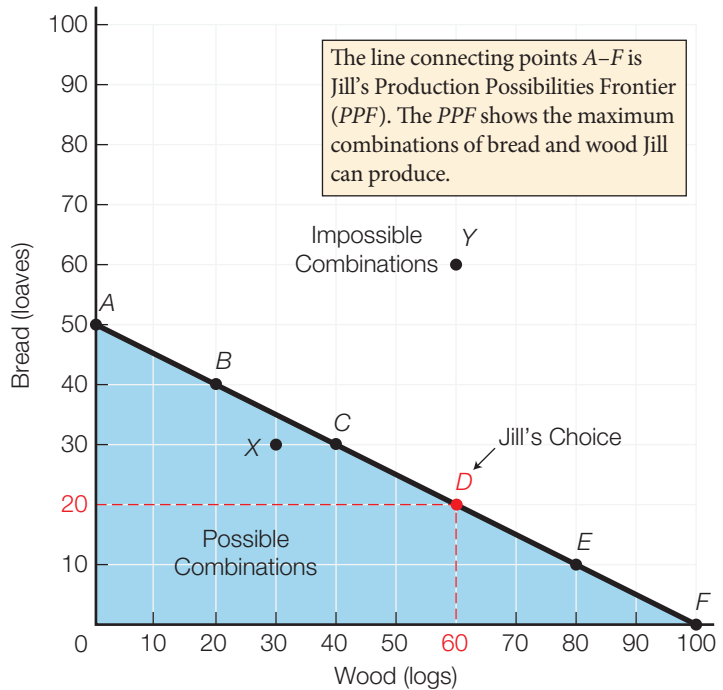
When you “trade” money for coffee at Tim Hortons, that is a voluntary exchange. If you thought you would be better off keeping the money instead of the coffee, you wouldn't pay. If Tims weren't better off with your money instead of the coffee, it wouldn't sell.



▲ Since she's self-sufficient, Jill must choose how much bread to bake and wood to chop in order to survive.

Figure 1.1 Jill's Production Possibilities

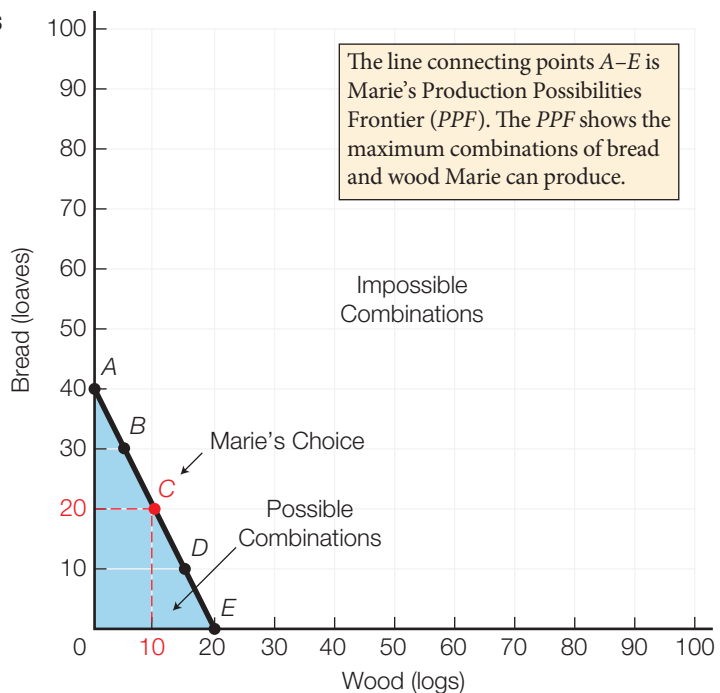
Possibility	Bread (loaves per month)	Wood (logs per month)
A	50	0
B	40	20
C	30	40
D	20	60
E	10	80
F	0	100



Marie, Jill's nearest neighbour, also grows her own wheat to make bread, and chops her own wood for fire and shelter. The table in Figure 1.2 shows the possible monthly combinations of bread and wood she can produce, depending on how she divides up her time.

Figure 1.2 Marie's Production Possibilities

Possibility	Bread (loaves per month)	Wood (logs per month)
A	40	0
B	30	5
C	20	10
D	10	15
E	0	20



Marie is weaker than Jill, so if Marie spends an entire month producing only bread, she can make 40 loaves (possibility *A* in Figure 1.2). Alternatively, if she spends all her time chopping wood, she can cut only 20 logs (possibility *E*). Since Marie is also self-sufficient, and can consume only what she produces herself, she divides her time and produces some bread and some wood. From these production possibilities, Marie chooses to produce possibility *C*, 20 loaves of bread and 10 logs of wood.

Production Possibilities Frontier A **production possibilities frontier** — *PPF* for short — shows the maximum combinations of products or services that can be produced with existing inputs. The graphs in Figures 1.1 and 1.2 show the production possibilities of our two pioneers.

production possibilities frontier maximum combinations of products or services that can be produced with existing inputs

Look first at Jill’s *PPF* in the Figure 1.1 graph. The monthly quantity of wood she can produce is measured on the horizontal axis. The monthly quantity of bread is measured on the vertical axis. When you connect the points representing her possible combinations of wood and bread (*A* – *F* from the Figure 1.1 table), you get the straight black line that is Jill’s production possibilities frontier. The points on Jill’s *PPF* show the *maximum* combinations of bread and wood she can produce if she uses all of her time, tools, and other inputs. Jill chose combination *D*, 20 loaves and 60 logs.

Jill could also choose not to work so hard and produce less. She could choose to produce any combination of bread and wood *inside* her production possibilities frontier. For example, she could decide to produce the combination of 30 loaves and 30 logs (possibility *X*). The shaded area inside her *PPF* represents all of her “possible combinations.” These combinations are possible, but are not maximum.

Combinations of bread and wood *outside* of Jill’s *PPF* are impossible for her to produce. Jill, like all of us, faces the problem of scarcity. She has limited time and energy, and can’t produce everything she might want. A combination of 60 loaves of bread and 60 logs of wood (possibility *Y*) might make Jill happier and more comfortable, but that combination is impossible for her to produce.

Similarly, Marie’s *PPF* in the Figure 1.2 graph shows the maximum possible combinations of bread and wood she can produce. Marie chose combination *C*. Her other possible production combinations are inside her *PPF*. Impossible combinations are outside her *PPF*. Marie has fewer possible combinations of bread and wood production than Jill.

Deal or No Deal? Do the Numbers

Can trade make both Jill and Marie better off? It doesn’t look promising, especially for Jill. She is a better bread maker than Marie (50 loaves versus 40 loaves) *and* a better wood chopper (100 logs versus 20 logs). An economist would describe Jill as having an **absolute advantage** — the ability to produce a product or service at a *lower absolute cost* than another producer — over Marie in both bread production and wood production. That is, Jill is more productive as a bread maker and as a wood chopper. If we were to measure dollar costs (which I have left out to keep the example as simple as possible), absolute advantage would mean Jill could produce both bread and wood at lower absolute dollar costs than Marie could.

absolute advantage the ability to produce a product or service at a lower absolute cost than another producer

If you are not keen on history, then in place of Jill and Marie, think China and Canada. If China can produce everything at lower cost than Canada, can there be mutually beneficial gains from trade for both countries? What’s the benefit for China? Won’t all Canadians end up unemployed?