

FOUNDATIONS OF

MICROECONOMICS

NINTH EDITION

Bade | Parkin



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Robin Bade

Michael Parkin

University of Western Ontario



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To Erin, Tessa, Jack, Abby, and Sophie

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About the Authors



Robin Bade was an undergraduate at the University of Queensland, Australia, where she earned degrees in mathematics and economics. After a spell teaching high school math and physics, she enrolled in the Ph.D. program at the Australian National University, from which she graduated in 1970. She has held faculty appointments at the University of Edinburgh in Scotland, at Bond University in Australia, and at the Universities of Manitoba, Toronto, and Western Ontario in Canada. Her research on international capital flows appears in the *International Economic Review* and the *Economic Record*.

Robin first taught the principles of economics course in 1970 and has taught it (alongside intermediate macroeconomics and international trade and finance) most years since then. She developed many of the ideas found in this text while conducting tutorials with her students at the University of Western Ontario.



Michael Parkin studied economics in England and began his university teaching career immediately after graduating with a B.A. from the University of Leicester. He learned the subject on the job at the University of Essex, England's most exciting new university of the 1960s, and at the age of 30 became one of the youngest full professors. He is a past president of the Canadian Economics Association and has served on the editorial boards of the *American Economic Review* and the *Journal of Monetary Economics*. His research on macroeconomics, monetary economics, and international economics has resulted in more than 160 publications in journals and edited volumes, including the *American Economic Review*, the *Journal of Political Economy*, the *Review of Economic Studies*, the *Journal of Monetary Economics*, and the *Journal of Money, Credit, and Banking*. He is author of the best-selling textbook, *Economics* (Pearson), now in its Thirteenth Edition.

Robin and Michael are a wife-and-husband team. Their most notable joint research created the Bade-Parkin Index of central bank independence and spawned a vast amount of research on that topic. They don't claim credit for the independence of the new European Central Bank, but its constitution and the movement toward greater independence of central banks around the world were aided by their pioneering work. Their joint textbooks include *Macroeconomics* (Prentice Hall), *Modern Macroeconomics* (Pearson Education Canada), and *Economics: Canada in the Global Environment*, the Canadian adaptation of Parkin, *Economics* (Pearson). They are dedicated to the challenge of explaining economics ever more clearly to a growing body of students.

Music, the theater, art, walking on the beach, and five grandchildren provides their relaxation and fun.

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FOUNDATIONS OF MICROECONOMICS

delivers a complete, hands-on learning system designed around active learning.

A Learning-by-Doing Approach

The **Checklist** that begins each chapter highlights the key topics covered and the chapter is divided into sections that directly correlate to the Checklist.

The **Checkpoint** that ends each section provides a full page of practice problems to encourage students to review the material while it is fresh in their minds.

Each chapter opens with a question about a central issue that sets the stage for the material.



Why does the price of avocados fluctuate?

4

Demand and Supply

When you have completed your study of this chapter, you will be able to

- 1 Distinguish between quantity demanded and demand, and explain what determines demand.
- 2 Distinguish between quantity supplied and supply, and explain what determines supply.
- 3 Explain how demand and supply determine price and quantity in a market, and explain the effects of changes in demand and supply.

CHAPTER CHECKLIST

CHECKPOINT 4.1

Distinguish between quantity demanded and demand, and explain what determines demand.

Practice Problems

The following events occur one at a time in the market for smartphones:

- The price of a smartphone falls.
- Producers announce that the price of a smartphone will fall next month.
- The price of a call made from a smartphone falls.
- The price of a call made from a land-line phone increases.
- An increase in memory makes smartphones more popular.

1. Explain the effect of each event on the demand for smartphones.
2. Use a graph to illustrate the effect of each event.
3. Does any event (or events) illustrate the law of demand?

In the News

Netflix hikes its price



EYE on the PRICE OF AVOCADOS

Why Does the Price of Avocados Fluctuate?

In August each year, the Californian avocado crop winds down and the Mexican crop takes over. But if Mexican production is not ramped up enough to replace the Californian crop, the quantity of avocados produced decreases and the price rises.

The table below provides some data on the quantity and price of avocados at

You can answer this question from the information provided. You know that an increase in demand brings a rise in the price and an increase in the quantity traded, while a decrease in supply brings a rise in the price and a decrease in the quantity traded.

Because the quantity of avocados bought decreased and the price

avocados, which we will assume was the same in both months.

At the end of July, the supply curve was S_{July} , the equilibrium price was \$1.03 per avocado, and the equilibrium quantity of avocados was 48 million pounds.

During August, decreased production in California decreased supply to

Eye On boxes apply theory to important issues and problems that shape our global society and individual decisions.

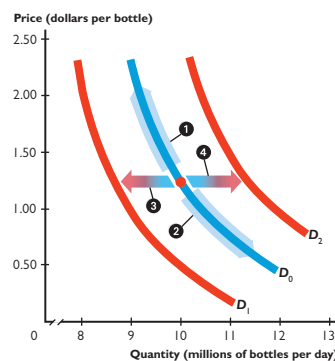
Confidence-Building Graphs

use color to show the direction of shifts and detailed, numbered captions guide students step-by-step through the action.

FIGURE 4.4
Change in Quantity Demanded Versus Change in Demand

- 1 **A decrease in the quantity demanded**
The quantity demanded decreases and there is a movement up along the demand curve D_0 if the price of the good rises and other things remain the same.

- 2 **A decrease in demand**
Demand decreases and the demand curve shifts leftward (from D_0 to D_1) if
 - The price of a substitute falls or the price of a complement rises.
 - The price of the good is expected to fall.
 - Income decreases.*
 - Expected future income or credit decreases.
 - The number of buyers decreases.



- 3 **An increase in the quantity demanded**
The quantity demanded increases and there is a movement down along the demand curve D_0 if the price of the good falls and other things remain the same.

- 4 **An increase in demand**
Demand increases and the demand curve shifts rightward (from D_0 to D_2) if
 - The price of a substitute rises or the price of a complement falls.
 - The price of the good is expected to rise.
 - Income increases.
 - Expected future income or credit increases.
 - The number of buyers increases.

* Bottled water is a normal good.

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