DIRK MATEER · LEE COPPOCK

PRINCIPLES OF ECONOMICS

PRINCIPLES OF MICROECONOMICS

THIRD EDITION

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PRINCIPLES OF MICROECONOMICS

THIRD EDITION

Dirk Mateer

University of Arizona

Lee Coppock

University of Virginia

W. W. NORTON & COMPANY

Independent Publishers Since 1923

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In memory of our editor, Jack Repcheck, whose zest for life was contagious. Thanks for believing in us and challenging us to share our passion for economic education with others.

D.M. and L.C.

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PREFACE

We are teachers of principles of economics. That is what we do. We each teach principles of microeconomics and macroeconomics to over a thousand students a semester, every single semester, at the University of Arizona and the University of Virginia. To date, we have taught over 50,000 students.

We decided to write our own text for one big reason. We simply were not satisfied with the available texts and felt strongly that we could write an innovative book to which dedicated instructors like us would respond. It's not that the already available texts were bad or inaccurate; it's that they lacked an understanding of what we, as teachers, have learned through fielding the thousands of questions that our students have asked us over the years. We do not advise policymakers, but we do advise students, and we know how their minds work.

For instance, there really was no text that showed an understanding for where students consistently trip up (for example, cost curves) and therefore provided an additional example or, better yet, a worked exercise. There really was no text that was careful to reinforce new terminology and difficult sticking points with explanations in everyday language. There really was no text that leveraged the fact that today's students are key participants in the twenty-first-century economy and that used examples and cases from markets in which they interact all the time (such as the markets for cell phones, social networking sites, computing devices, and online booksellers).

What our years in the classroom have brought home to us is the importance of meeting students where they are. This means knowing their cultural touchstones and trying to tell the story of economics with those touchstones in mind. In our text, we meet students where they are through resonance and reinforcement. In fact, these two words are our mantra—we strive to make each topic resonate and then make it stick through reinforcement.

Whenever possible, we use student-centered examples that resonate with students. For instance, many of our examples refer to jobs that students often hold and businesses that often employ them. If the examples resonate, students are much more likely to dig in to the material wholeheartedly and internalize key concepts. This revision process is not new to us; every time a new term begins, we update our course materials. What you see in the Third Edition of this book is a reflection of current economic theory, the contributions of students (past and present), and the changes in society around us. As professional instructors, we have an unfailing commitment to reach every student who crosses our paths and equip them for success. This book, like our classrooms, reflects this goal.

When we teach, we try to create a rhythm of reinforcement in our lectures that begins with the presentation of new material, is followed by a concrete example and then a reinforcing device, and then closes with a "make it stick" moment. We do this over and over again. We have tried to bring that rhythm

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to the book. We believe strongly that this commitment to reinforcement works. To give an example, in our chapter "Oligopoly and Strategic Behavior," while presenting the crucial yet difficult subject of game theory, we work through the concept of the prisoner's dilemma at least six different ways.

No educator is happy with the challenge we all face to motivate our students to read the assigned text. No matter how effective our lectures are, if our students are not reinforcing those lectures by reading the assigned text chapters, they are only partially absorbing the key takeaways that properly trained citizens need in order to thrive in today's world. A second key motivation for us to undertake this ambitious project was the desire to create a text that students would read, week in and week out, for the entire course. By following our commitment to resonance and reinforcement, we are confident that we have written a text that's a good read for today's students. So good, in fact, that we believe students will read entire chapters and actually enjoy them. Many users of the first two editions have indicated that this is the case.

What do we all want? We want our students to leave our courses having internalized fundamentals that they will remember for life. The fundamentals (such as understanding incentives, opportunity cost, and thinking at the margin) will help them to make better choices in the workplace, in their personal investments, in their long-term planning, in their voting, and in all their critical choices. The bottom line is that they will live more fulfilled and satisfying lives if we succeed. The purpose of this text is to help all of us succeed in this quest.

What does this classroom-inspired, student-centered text look like?

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A Simple Narrative

First and foremost, we keep the narrative simple. We always bear in mind all those office-hour conversations with students where we searched for some way to make sense of this foreign language—for them—that is economics. It is incredibly satisfying when you find the right expression, explanation, or example that creates the "Oh, now I get it . . ." moment with your student. We have filled the narrative with those successful "now I get it" passages.

Real-World, Relatable Examples and Cases that Resonate

Nothing makes this material stick for students like good examples and cases that they relate to, and we have peppered our book with them. They are part of the narrative, set off with an Economics in the Real World heading. We further feature Economics in the Media boxed examples that use scenes from movies and TV shows that illustrate economic concepts. One of us has written the book (literally!) on economics in the movies, and we have used these clips year after year to make economics stick with students.

In addition, we have continued to work hard to create a text that represents the student population. Economics as a discipline is less diverse than many other fields of study, and that's something we've been trying to change, at the ground level, for decades. How do we do this? We listen to our students in our office hours, through email and informal conversations, and by observing the level of engagement in our classrooms. We also go out of our way to reach out and help those in need to learn and feel welcome. We hope you get this same feeling when you read this book! The style of writing is clear but intentionally conversational—the photos and captions are designed to draw you in, just as a lecture would. Take a quick read or flip through the pages, and you will see what we mean.

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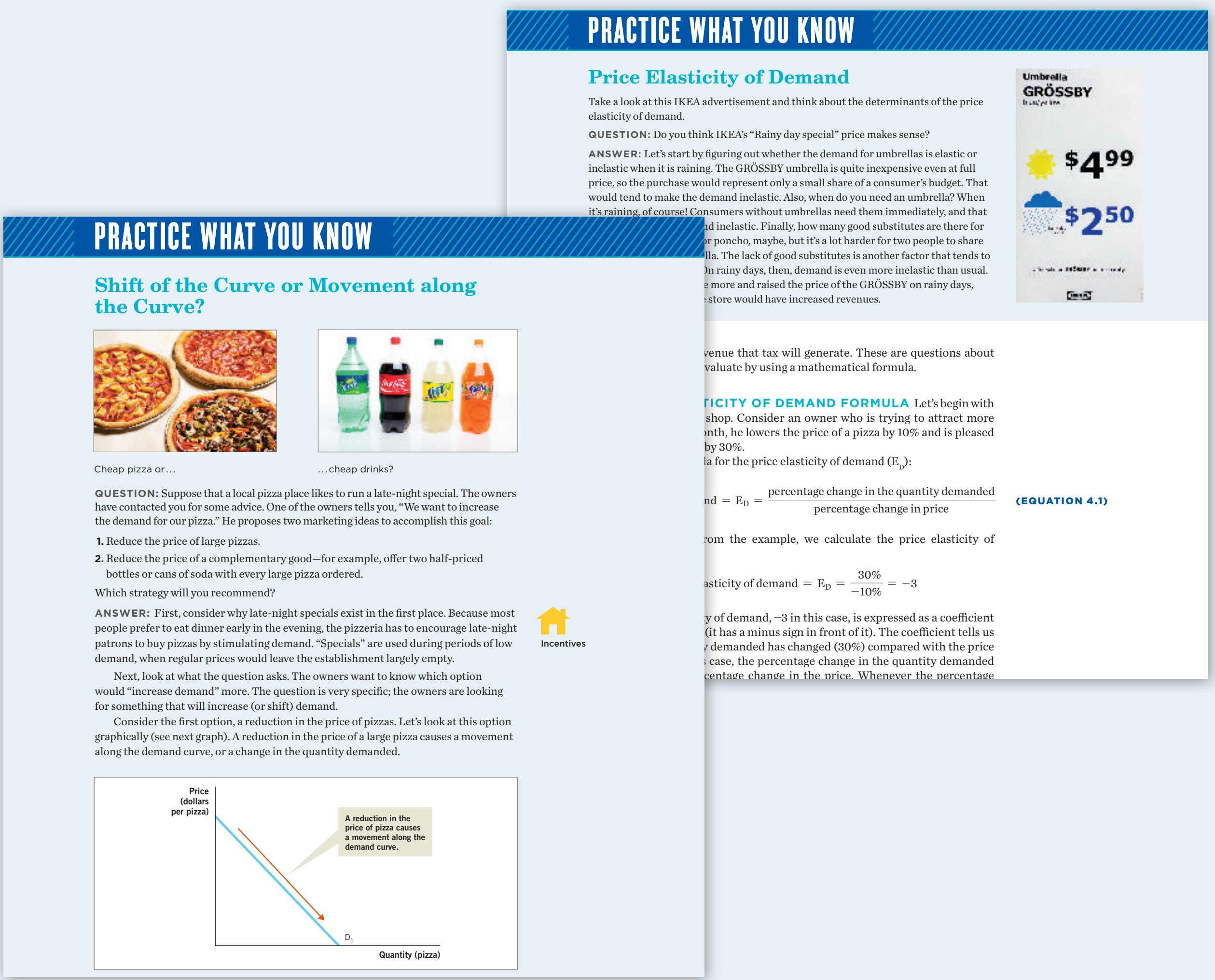
Applying Economic Decision-Making Through Problem-Solving

Most instructors in this course want students to learn to think like economists and to apply economic principles to their decision-making. This text shares this goal. To get students thinking about economics, we open each chapter with a scenario to illustrate a popular concept or to point out a misconception. Students come to our classes with a number of strongly held beliefs about economics and the economy, so we begin each chapter recognizing that fact and then establishing what we will do to illuminate and clarify that subject area. Then, in each chapter, several Practice What You Know features allow students to self-check their comprehension while also laying the foundation for the step-by-step problem solving required for the end-of-chapter Study Problems. And throughout the text, key equations are used, and the five core foundations of economics (incentives, trade-offs, opportunity cost, marginal thinking, and trade creates value) are reinforced with a special icon to ensure that students are constantly connecting the dots.

Incentives
Trade-offs
Opportunity cost
Marginal thinking
Trade creates value



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Big-Picture Pedagogy

For beginning students, economics can be a subject with many new concepts and seemingly many details to memorize. To help students stay focused on the big ideas of each chapter while continuing to emphasize critical thinking, we use several unique features. First we introduce students to the objectives in each chapter in the form of Big Questions that students will explore rather than memorize. Then we come back to the Big Questions in the conclusion to the chapter with Answering the Big Questions.

BIG QUESTIONS

- What are the factors of production?
- Where does the demand for labor come from?
- Where does the supply of labor come from?
- What are the determinants of demand and supply in the labor market?
- What role do land and capital play in production?

ANSWERING *the* BIG QUESTIONS

What are the factors of production?

- Labor, land, and capital are the factors of production, or the inputs used in producing goods and services.

Where does the demand for labor come from?

- The demand for each factor of production is a derived demand that stems from a firm's desire to supply a good in another market. Labor demand is contingent on the value of the marginal product that is produced, and the value of the marginal product is equivalent to the firm's labor demand curve.

Where does the supply of labor come from?

- The supply of labor comes from the wage rate that is offered. Each worker faces the labor-leisure trade-off. At high wage levels, the income effect may become larger than the substitution effect and cause the labor supply curve to bend backward. Changes in the supply of labor can result from other employment opportunities, the changing composition of the workforce, immigration, and migration.

What are the determinants of demand and supply in the labor market?

- Labor markets bring the forces of demand and supply together in a wage signal that conveys information to both sides of the market. At wages above the equilibrium, the supply of workers exceeds the demand for labor. The result is a surplus of available workers that places downward pressure on wages until they reach the equilibrium wage, at which point the surplus is eliminated. At wages below the equilibrium, the demand for labor exceeds the available supply of workers, and a shortage develops. The shortage forces firms to offer higher wages to attract workers. Wages rise until they reach the equilibrium wage, at which point the shortage is eliminated.
- There is no definitive result for outsourcing of labor in the short run. In the long run, outsourcing moves jobs to workers who are more productive and enhances overall social welfare.

What role do land and capital play in production?

- Land and capital (as well as labor) are the factors of production across which firms compare the value of the marginal product per dollar spent. Firms seek to equalize the revenue per dollar spent on each input, thereby maximizing their efficiency.

Another notable reinforcement device is the Snapshot that appears in most chapters. We have used the innovation of modern infographics to create a memorable story that reinforces a particularly important topic. By combining pictures, text, and data in these unique features, we encourage students to think about and understand different components of a concept working together.

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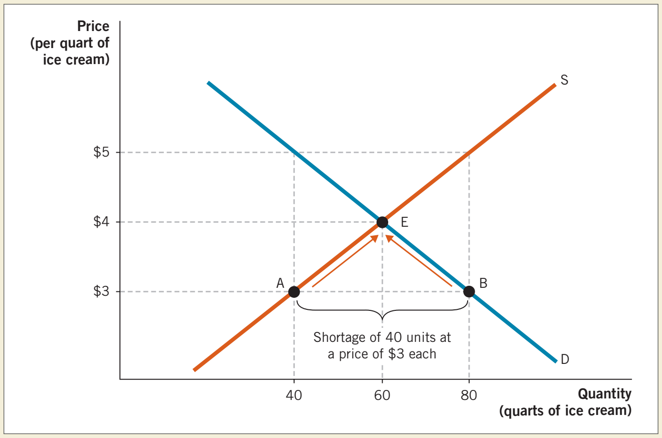
Solved-Problems Pedagogy

Last but certainly not least, we conclude each chapter with a selection of fully solved problems. These problems show students how to approach material they will see in homework, quizzes, and tests.

Solved Problems

5a. The equilibrium price is \$4, and the equilibrium quantity is 60 quarts. The next step is to graph the curves, as shown here.



b. A shortage of 40 quarts of ice cream exists at \$3 (quantity demanded is 80 and the quantity supplied is 40); therefore, there is excess demand. Ice cream sellers will raise their price as long as excess demand exists—that is, as long as the price is below \$4. It is not until \$4 that the equilibrium point is reached and the shortage is resolved.

8.a. The first step is to set $Q_D = Q_S$. Doing so gives us $90 - 2P = P$. Solving for price, we find that $90 = 3P$, or $P = 30$. Once we know that $P = 30$, we can plug this value back into either of the original equations, $Q_D = 90 - 2P$ or $Q_S = P$. Beginning with Q_D, we get $90 - 2(30) = 90 - 60 = 30$, or we can plug it into $Q_S = P$, so $Q_S = 30$. Because we get a quantity of 30 for both Q_D and Q_S, we know that the price of \$30 is correct.

b. In this part, we plug \$20 into Q_D. Doing so yields $90 - 2(20) = 50$. Now we plug \$20 into Q_S. Doing so yields 20.

c. Because $Q_D = 50$ and $Q_S = 20$, there is a shortage of 30 quarts.

d. Whenever there is a shortage of a good, the price will rise in order to find the equilibrium point.

9a. The reduction in consumer income led to a negative, or leftward, shift in the demand curve for gasoline. Because this is the only change, the equilibrium price of gasoline fell. In fact, by the end of 2008, the price of gasoline had fallen to under \$2 per gallon in the United States.

b. The significant drop in the cost of production led to a large increase, or rightward, shift in the supply of gasoline. This increase in supply led to a decrease in price. In fact, by early 2015, the average price of a gallon of regular gasoline in the United States fell to under \$2 per gallon.

Looking at parts (a) and (b) together, you can see that very different causes led to steep drops in the price of gasoline. In 2008 the cause was a decline in demand; in 2014 it was an increase in supply.

10. Because alcohol and Solo cups are complements, the key here is to recall that a change in the price of a complementary good shifts the demand curve for the related good. Lower alcohol prices will cause consumers to purchase more alcohol and therefore demand more Solo cups. In other words, the entire demand curve for Solo cups shifts to the right.

12a. The price of related goods is a demand shifter so, it is incorrect.

b. Income is a demand shifter so, it is incorrect.

c. The cost of inputs is a supply shifter so, it is correct.

d. The price causes a movement along the supply curve so, it is incorrect.

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Principles of Microeconomics—Hallmarks and Updates to the Third Edition

When we wrote the First Edition of *Principles of Microeconomics*, we decided to follow the traditional structure found in most texts. Though every chapter is critical, we believe that those covering supply and demand, elasticity, and production costs are the *most* fundamental, since so many other insights and takeaways build on them. We tried triply hard to reinforce these chapters with extra examples and opportunities for self-assessment.

Enthusiastic feedback from the Second Edition told us that our readers were happy with the organization of the book, so in this edition we were able to drill down and focus our updates on elements that we believe add tremendous value. We did a big rethink on every example in the textbook, updating and changing examples so that they are relatable, inclusive, culturally relevant, and interesting, and so the reader is engaged. This involved updating text content, features boxes, images, and illustrations. We took a hard look at many chapters, considering where we might introduce the work of different economists, especially women, who are often not well represented in principles texts. In trying to be relatable to a varied student body, we always looked for places where we could make sure every reader finds themselves represented repeatedly throughout the book.

Several other important changes were made to the chapter pedagogy. Each chapter now starts with a large and engaging photo that works with the chapter opener and the caption. Images and stories engage students, and we wanted to improve on our treatment in previous editions. Each chapter now includes a challenge question in our practice boxes. These challenge questions give curious students the opportuntiy to analyze problems in-depth so that deeper learning occurs. Further, Economics for Life boxes have both revised content and bullets that summarize the key takeaways at a glance. Based on reviewer feedback, we have updated and simplified Snapshots, and we eliminated those that were found to be repetitive with the text material. We also have built a closer connection to the book and the media package, especially elements of Smartwork5 and Inquizitive. This is described in more detail below.

A sampling of specific updates to the text includes new material featuring the research of economists like Joan Robinson, Elinor Ostrom, and Ulrike Malmendier, among others. New media examples feature *Shark Tank*, *Ocean's 8*, *Breaking Bad*, *Superior Donuts*, *Mad Men*, *Superstore*, *Captain America: Civil War*, *Last Week Tonight with John Oliver*, *Worth It*, *Inside Out*, *The Onion*, and *Planet Money*. Updated examples include new data on the relationship between educational attainment and pay; a full explanation of the gender wage gap along with a study on why the gender gap exists at Uber; and a figure showing gender differences among the most common jobs. We dug deeper to give our students the best data so that they can become more informed.

One hallmark of this textbook that is not found anywhere else in the principles markets remains. This text includes a separate chapter on price discrimination. We have done this because the digital economy has made price discrimination much more common than it ever was before, so what was once a fun but somewhat marginal topic is no longer marginal. What's more, students

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really relate to it because they experience it in many of the markets in which they participate—for example, college sporting events.

We also place a stand-alone consumer theory chapter toward the end of the volume, but that does not mean that we consider it an optional chapter. We have learned that there is tremendous variation among instructors for when to present this material in the course, and we wanted to allow for maximum flexibility.

Supplements and Media

SMARTWORK5

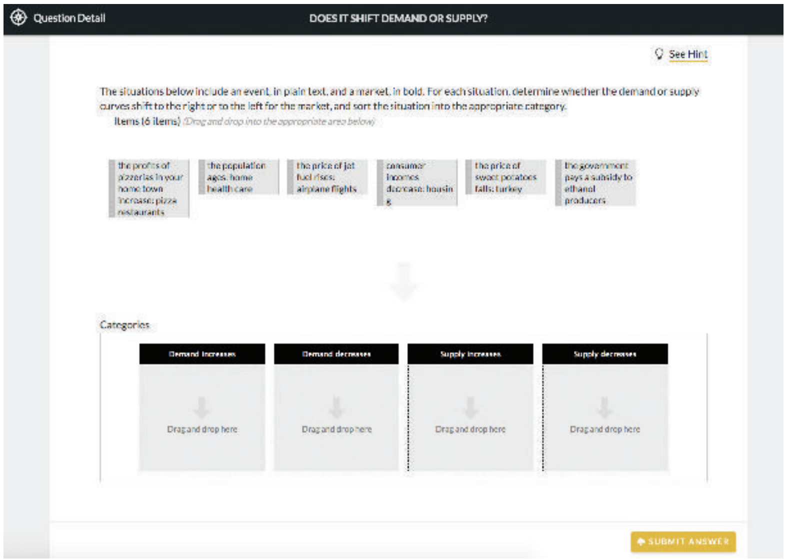
Smartwork5 (SW5) for *Principles of Microeconomics* is an online learning environment that helps instructors meet the teaching goal of connecting concepts and showing applications. Richly varied questions and intuitive functionality give users the flexibility to create the type of learning that works best for their students. Try a demo of the following features at digital.wwnorton.com/prinecomi3.

Easy to launch, easy to use

Simple course setup and intuitive student registration minimize administrative headaches at the beginning of the semester. Instructors can use prebuilt activities or customize their own assignments and questions to suit their needs.

Integration with campus LMS platforms

Smartwork5 integrates with campus learning management systems. Student grades flow automatically to the instructor's LMS course. A single sign-on between the LMS and Norton digital products simplifies student access—and this means fewer password/log-in woes.



Smartwork5 Norton's easy-to-use homework system designed to integrate with your LMS.

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Trusted economics tools and content

Smartwork5 teaches students not just how to solve problems but how to problem-solve, connecting concepts to learned skills through varied applications. Smartwork5 includes assignments based on real-world economic scenarios, "Office Hours" video tutorials presented in the learning moment, analytical and interactive graphing questions, and application problems. Rich answer-specific feedback builds students' confidence and economic skills. Questions are book specific, matching the terminology and conventions that students see in their textbook. They were developed in collaboration with instructors actively teaching with the Mateer and Coppock textbook.

NEW for this edition are several reviewer-tested improvements and content types. Smartwork5 now also includes questions keyed in to Practice What You Know examples in each chapter, building a strong support system between Smartwork5 and the text. Further, up-to-date news feature questions have been added to each chapter. In total, there are close to 500 new questions in the latest release of Smartwork5.

Rich performance reports

Intuitive performance reports for both individual students and entire classes help instructors gauge student comprehension and adjust their teaching accordingly.

An intuitive, easy-to-use graphing tool

The Smartwork5 graphing interface consistently uses the same colors and notation as the in-text art to enhance continuity and reduce confusion. The interface is easy to understand and was designed for both computers and tablet devices. Students are invited to manipulate existing graphs or to draw their own graphs from scratch.

Answer-specific feedback and hints

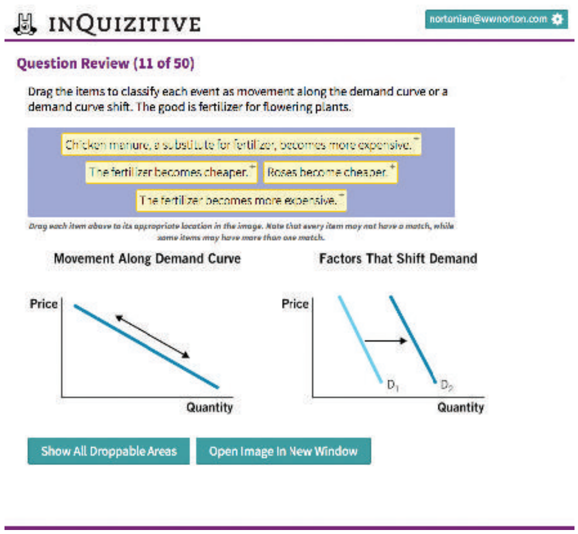
Smartwork5 teaches students to problem-solve, not just solve a single problem. Many online homework systems only offer solution explanations after the student has answered a question. Smartwork5, in contrast, provides explanations throughout the problem-solving process, giving answer-specific feedback and hints for common misconceptions.

INQUIZITIVE

Award-winning InQuizitive is Norton's gamelike, adaptive quizzing and practice system. Developed and revised for the new edition with even more book-specific questions and content, this system lets students compete with themselves as they prepare their material for class. Demo InQuisitive at digital.wwnorton.com/prinecomi3.

Play with a purpose

Gaming elements built into InQuizitive engage students and motivate them to keep working. Students wager points on every question based on their confidence level, gain additional points for high success rates and on bonus questions, and can improve their grade by continuing to work questions in InQuizitive.



Inquizitive offers adaptive quizzing with gamelike features.

Active learning, helpful feedback

InQuizitive includes a variety of question types beyond basic multiple choice. Image-click, numeric entry, and various graph interpretation questions build economic skills and better prepare students for lecture, quizzes, and exams. Rich answer-specific feedback helps students understand their mistakes.

Easy to use, and integrates with your campus LMS

Instructors can set up InQuizitive for their students in less than 5 minutes. Students can access InQuizitive on tablet devices as well as on computers, making it easy to study on the go. InQuizitive integrates with campus learning management systems; when integration is enabled, grades flow automatically to campus LMS gradebooks. A single sign-on between the LMS and Norton digital products simplifies student access.

Formative assessment works

The efficacy of formative assessment is backed by education and psychology research (see inquizitive.wwnorton.com). Furthermore, performance-specific feedback, varied question types, and gaming elements built into InQuizitive have been shown to increase student engagement and retention of material.

NORTON COURSEPACK

Bring tutorial videos, assessment, and other online teaching resources directly into your new or existing online course with the Norton Coursepack. It's easily customizable and available for all major learning management systems, including Blackboard, Desire2Learn, Moodle, and Canvas.

The Norton Coursepack for *Principles of Economics* includes:

- Concept Check quizzes
- Homework quizzes

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- Office Hours video tutorials
- Interactive Scratch Paper modules
- Flashcards
- Links to the digital landing page for the ebook, InQuizitive, and Smartwork5
- Test bank

THE ULTIMATE GUIDE TO TEACHING ECONOMICS—FULLY UPDATED WITH NEW TEACHING TYPES

The Ultimate Guide to Teaching Economics is much more than an instructor's manual; it is two handbooks for becoming a better teacher. *The Ultimate Guide*—the most innovative instructor's manual ever created for principles of economics—includes 1,000+ teaching tips from the classrooms of the authors and other innovative instructors. It can help instructors, both new and experienced, incorporate best-teaching practices and find inspiring ideas for enlivening their lectures.

The tips in *The Ultimate Guide to Teaching Microeconomics* and *The Ultimate Guide to Teaching Macroeconomics* include:

- Think-pair-share activities to promote small-group discussion and active learning
- "Recipes" for in-class activities and demonstrations that include descriptions of the activity, required materials, estimated length of time, estimated difficulty, recommended class size, and instructions. Improved and ready-to-use worksheets are also available for select activities, now with additional instructions to make them easier to use in class.
- Descriptions of movie clips, TV shows, commercials, and other videos that can be used in class to illustrate economic concepts
- Clicker questions and questions designed for other classroom signaling systems
- Ideas for music examples that can be used as lecture starters
- Suggestions for additional real-world examples to engage students
- A Taking It Online appendix in each chapter that shows how *The Ultimate Guide*'s class-tested teaching ideas can be adapted to online teaching environments
- Writing to Learn tips that give instructors short (one-page or less) paper prompts with ideas for potential student responses

Each chapter ends with solutions to the unsolved end-of-chapter problems in the textbook.

INTERACTIVE INSTRUCTOR'S GUIDE

The Interactive Instructor's Guide (IIG) brings all the great content from *The Ultimate Guide to Teaching Economics* into an online database that can be searched and filtered by a number of criteria, such as topic, chapter, key word, media format, and resource type. Instructors can even save their favorite assets to a list so they don't need to hunt for them each time they revisit the IIG.

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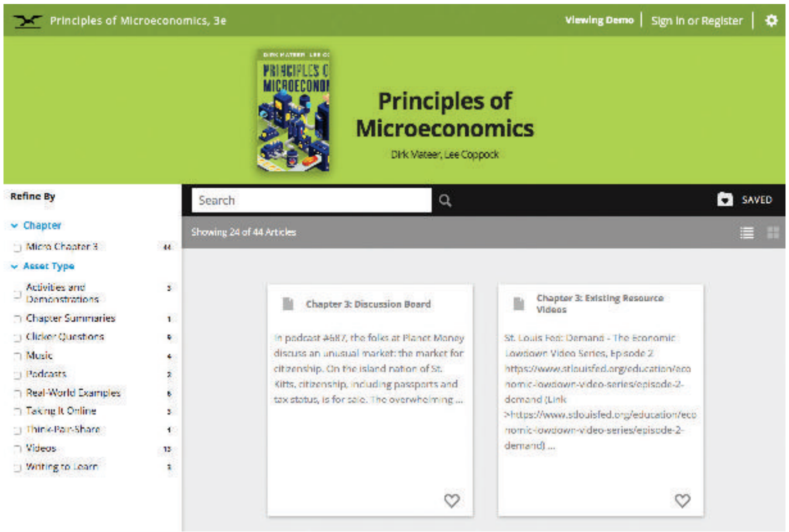
To make it quick and easy for instructors to incorporate the tips from *The Ultimate Guide to Teaching Economics,* the IIG also includes:

- Downloadable versions of student worksheets for activities and demonstrations
- Downloadable PowerPoint slides for clicker questions
- Additional teaching resources not found in *The Ultimate Guide*



Interactive Instructor's Guide This searchable database of premium resources makes lecture development easy.

OFFICE HOURS VIDEO TUTORIALS

This collection of now more than 85 videos brings the office-hours experience online. Each video explains a fundamental concept. Videos were developed and filmed working with the authors, as well as a new team of presenters.

Perfect for online courses, each Office Hours video tutorial is succinct (90 seconds to 2 minutes in length) and mimics the office-hours experience. The videos focus on topics that are typically difficult to explain just in writing (or over email), such as shifting supply and demand curves.

The Office Hours videos have been incorporated throughout the Smartwork5 online homework system as video feedback for questions, integrated into the ebook, and included in the Norton Coursepack.

TEST BANK

NEW Two versions of the test bank are now available to better serve very large courses and offer you more question options for quizzes and tests each semester you teach. Each version has over 6,000 questions, with over 3,000 of those questions either new or substantively revised. Both test banks have been fully updated and expanded based on reviewer feedback. Each chapter includes between 100 and 150 questions and incorporates graphs and images where appropriate. The test bank has been developed using the Norton Assessment

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ABOUT THE AUTHORS

Dirk Mateer is the Gerald J. Swanson Chair in Economic Education at the University of Arizona. His research has appeared in the *Journal of Economic Education* as well as other journals and focuses on media-enriched learning. He is the author of *Economics in the Movies* (2005) and is an award-winning instructor. He has been featured in the "Great Teachers in Economics" series and he was also the inaugural winner of the Economic Communicator Contest sponsored by the Association of Private Enterprise Education. While he was at Penn State, he received the George W. Atherton Award, the university's highest teaching award, and was voted the best overall teacher in the Smeal College of Business by the readers of *Critique Magazine*. Now at Arizona, he received the best large class lecture award in the Eller College of Management.

Lee Coppock is professor of economics and director of undergraduate studies in the Department of Economics at the University of Virginia, where he has taught more than 15,000 students in principles of macroeconomics. He has received several teaching awards, including the 2017 Kenneth G. Elzinga Distinguished Teaching Award from the Southern Economics Association and the 2018 UVA Alumni Distinguished Professor Award. Along with Krista, his wife of 30 years, he has four children: Bethany, Lee III, Kara, and Jackson.

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PART I

Introduction

CHAPTER

01

Five Foundations of Economics

Economics Is About More Than Money.

Have you ever thought about what it would be like to have a money tree in your backyard? Imagine walking outside, picking cash off the branches, and using it to buy whatever you desired. If that sounds too good to be true, it is—and not just because money doesn't grow on trees. The problem is, if money did grow on trees, it wouldn't be scarce. Everyone would have their own money tree, and therefore they wouldn't have any reason to give you something in return for the greenbacks you waved in front of them. You'd have all the money you could possibly want, and yet in practical terms you'd be as poor as if you had none at all.

The money-tree story teaches a lesson about the value-destroying nature of inflation; we'll get to that in a later chapter. But there's another, even more basic moral, namely that money itself is not really what we care about. What we care about is what we use money to acquire: the actual goods and services that make our lives more enjoyable.

Economist Carol Graham, who studies "the economics of happiness," argues that human happiness provides an alternative measure of well-being, one that covers more than a snapshot of people's finances at a single point in time. For many people, income is variable, with periods of unemployment causing them to move in and out of poverty. Even when these folks are working, uncertainty about the future subtracts from their happiness. Other people's variations in

A personal money tree would be awesome, especially if no one else had one!

income follow a more predictable course: these folks are relatively poor when young, earn more and build up savings during middle age, and then draw down those savings once they retire. These people, for the most part, avoid the happiness-undermining effects of financial uncertainty.

Money also can't tell us about neighborhood effects, like the fact that New York City is a way more expensive place to live than Charlottesville, Virginia, or Tubac, Arizona (where your authors live). These are some reasons why economists are concerned about human happiness just as much, if not more, than simply how much money you make.

This textbook provides the tools you need to fill in more of the picture and make your own assessments about the economy. What other discipline helps you discover how the world works, how to be an informed citizen, and how to live your life to the fullest? Economics can improve your understanding of the stock market and help you make better decisions. If you are concerned about Social Security, this textbook explains how it

Even in New York's pricey Greenwich Village, money doesn't grow on trees. The people living here do make a lot more money than most people, though. So do the residents of Miami Beach and Beverly Hills. Does that make them happier? Not necessarily.

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works. If you are interested in learning more about the economics of health care and some of the challenges it faces, the answers are here.

In this chapter, you will learn about five foundations of economics—incentives, trade-offs, opportunity cost, marginal thinking, and the principle that trade creates value. You will find that many of the more complex problems presented later in the text are based on these foundations, either singly or in combination. Think of this chapter as a road map that provides a broad overview of your first journey into economics. Let's get started!

· BIG QUESTIONS ·

- What is economics?
- What are five foundations of economics?

What Is Economics?

Economists study how decisions are made. Examples of economic decisions include whether you should buy or lease a car, sublet your apartment, or buy that Gibson guitar you've been eyeing. And just as individuals must choose what to buy within the limits of their income, society as a whole must determine what to produce from its limited set of resources.

Of course, life would be a lot easier if we could have whatever we wanted whenever we wanted it. Unfortunately, life does not work that way. Our wants and needs are practically unlimited, but the resources available to satisfy these wants and needs are always limited. The term used to describe the limited nature of society's resources is **scarcity**. Even the most abundant resources, like the water we drink and the air we breathe, are not always abundant enough everywhere to meet the wants and needs of every person. So how do individuals and societies make decisions about scarce resources? This is the basic question economists seek to answer. **Economics** is the study of how individuals and societies allocate their limited resources to satisfy their practically unlimited wants.

Scarcity
refers to the inherently limited nature of society's resources, given society's unlimited wants and needs.

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Water is scarce...

...and so are diamonds!

Microeconomics and Macroeconomics

Microeconomics
is the study of the individual units that make up the economy.

Macroeconomics
is the study of the overall aspects and workings of an economy.

The study of economics is divided into two subfields: microeconomics and macroeconomics. **Microeconomics** (micro) is the study of the individual units that make up the economy, such as households and businesses. **Macroeconomics** (macro) is the study of the overall aspects and workings of an economy, such as inflation (an overall increase in prices), growth, employment, interest rates, and the productivity of the economy as a whole. To understand the difference, consider a worker who gets laid off and becomes unemployed. Is this an issue that would be addressed in microeconomics or macroeconomics? The question seems to fit parts of both definitions. The worker is an individual, which is micro, but employment is one of the broad areas of concern for the economy as a whole, which is macro. However, because only one worker is laid off, this is a micro issue. If many workers were laid off and the result was a higher unemployment rate across the entire economy, the issue would be broad enough to be studied by macroeconomists. However, macroeconomics is more than just an aggregation of microeconomics. Macroeconomists examine, among other things, government policies regarding the federal budget and money supply, the reasons for inflation and unemployment, economic growth, international trade, and government borrowing—topics that are too complex to be understood using only microeconomic analysis.

What Are Five Foundations of Economics?

The study of economics can be complicated, but we can make it very accessible by breaking it down into a set of component parts. The five foundations presented here are key components of economics. They are a bit like the natural laws of physics or chemistry. Almost every economic subject can be analyzed through the prism of one of these foundations. By mastering the five

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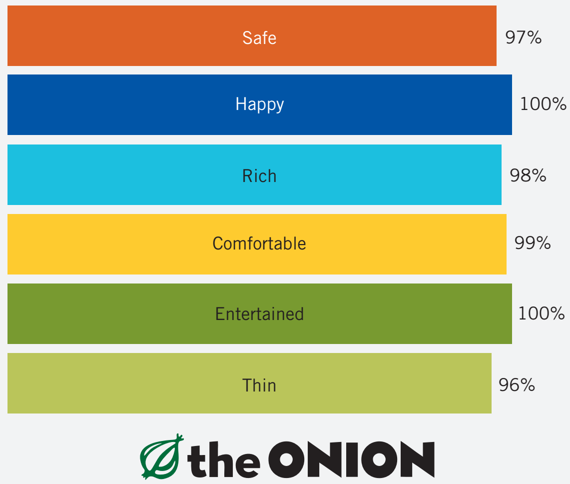
ECONOMICS *in the* MEDIA

Scarcity

NATION JUST WANTS TO BE SAFE, HAPPY, RICH, COMFORTABLE, ENTERTAINED AT ALL TIMES

A short video from the satirical website *The Onion* describes a fictitious report from the Pew Research Center, about what Americans want and expect from life. After a graphic details how practically all Americans would like to be everything from “safe” to “romantically fulfilled,” the video segues to interviews with individuals whose “all I want” lists range from the endearing (a big happy dog) to the quirky (a new Wes Anderson movie), the unrealistic (quick and easy weight loss), and the impossible (“I don’t want to die”).

We live in a world of scarcity. But that alone doesn’t explain why we’re unable to meet everyone’s wants. Couldn’t we just redistribute goods and services more evenly, to satisfy everyone? No chance, because our wants exceed our needs, and when all our wants are met, we come up with new ones. Many people spend their lives trying to “keep up with the Joneses.” This isn’t all bad, because competitive drive causes people to work longer and harder, which makes the economy more productive. At the same time, when we purchase one good, we have less to spend on other goods we also desire, and therefore we face trade-offs and opportunity costs.



Based on a fictitious report on the satirical website *The Onion,* this graphic shows what Americans want. Of course, part of the joke is that this is not far from the truth for most of us, right?

foundations, you will be on your way to succeeding in this course and thinking like an economist. The five foundations of economics are:

- Incentives
- Trade-offs
- Opportunity cost
- Marginal thinking
- Trade creates value

Each of these five foundations reappears throughout the book and enables you to solve complex problems. Every time you encounter one of the five concepts, you will see an icon of a house in the margin. As you become more adept at economic analysis, you will often use two or more of these foundational ideas to understand the economic world around you.

Incentives
Trade-offs
Opportunity cost
Marginal thinking
Trade creates value

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