CAMBRIDGE

Cambridge University Press & Assessment
978-1-009-35478-3 — Microeconomics for Managers
4th Edition
Richard B. McKenzie , D. Eric Schansberg , Dwight R. Lee
Excerpt
More Information

Book I
The Market Economy, Overview, and Applications

In Chapters 1 and 2 of *Microeconomics for Managers*, we develop the broad outlines of the “economic way of thinking.” We explore what economists mean by markets and “rational behavior” and show how “economic thinking” can illuminate many public and management policies. In Chapters 3 and 4, we will develop supply and demand analysis, which will allow us to explore the market consequences of an array of governmental and organizational policies in Chapters 5 and 6. Our goal throughout Book I is to better understand the market economy and consider how market forces can affect management decisions. In Book II (Chapters 7 and 8) and Book III (Chapters 9–12), we will examine many of the theoretical details underpinning supply and market structure. In these later chapters, we will develop concepts about production and costs; explain how firms behave in markets with different levels of competitiveness; and focus on how market structure impacts managerial decisions.

1

Microeconomics: A Way of Thinking about Business

Working hard to think clearly is the beginning of moral conduct.

Attributed to Blaise Pascal

Economics is a way of thinking about problems, not a set of answers to be taken off the shelf.

Unknown

The opening chapters of economics textbooks are notoriously scattered. We'll open with a discussion of how and why markets emerge – out of consumer preferences and the willingness of entrepreneurs to serve those consumers, often for money and profit. Then, we'll move to more-conventional introductory concepts. We'll define the constraint at the crux of all economic behavior: the "scarcity" of money, time, and other resources. We'll describe how scarcity leads to choices that have inherent trade-offs. And we'll discuss how the presence (or absence) of property rights impacts those choices – from the perspective of individuals and society.

We'll also discuss the role of theory – in particular, "the economic way of thinking." The kind of thinking that will be central to this book starts from an innocuous observation: *people have a basic drive to improve their lot in life because they don't have everything they want.* Much of this introductory chapter and the book (and the course), both in theory and in application, is directed at driving home this easily overlooked point. Oddly enough, many lessons in this book are crystallized in a classic story about what happened in a German prisoner-of-war (POW) camp during World War II, as related by a prisoner who happened to be a trained economist.

Part A Theory and Public Policy Applications

The Emergence of a Market

Economic systems spring from people's drive to improve their welfare. R. A. Radford, an American soldier who was captured and imprisoned during World War II, left a vivid account of the primitive **market** for goods and services that grew up in the most unlikely of places, his POW camp in Italy (Radford 1945). Because the inmates had few opportunities to produce the things they wanted, they turned to a system of exchange based on the cigarettes, toiletries, chocolate, and other rations distributed to them periodically by the Red Cross.

A **market** is the process by which buyers and sellers determine what they are willing to buy and sell – and on what terms.

The Red Cross distributed the supplies equally among the prisoners, but "very soon after capture … [the prisoners] realized that it was rather undesirable and unnecessary, in view of the limited size and the quality of supplies, to give away or to accept gifts of cigarettes or food. Goodwill developed into trading as a more equitable means of maximizing individual satisfaction" (Radford 1945, 190). As the weeks went by, trade expanded and the prices of goods stabilized. A soldier who hoped to receive a high price for his soap found he had to compete with others who also wanted to trade soap. Soon, shops emerged and middlemen began to take advantage of discrepancies in the prices offered in different prisoner bungalows.

A priest was one of the few prisoners allowed to move freely among the bungalows. He was able to exchange a pack of cigarettes for a pound of cheese in one bungalow; trade the cheese for a pack-and-a-half of cigarettes in a second bungalow; and return home with more cigarettes than he had started with. Although he was acting in his own self-interest, he had also provided people with something they wanted – more cigarettes or cheese than they would otherwise have had. In fact, prices for cheese and cigarettes differed because prisoners in different bungalows had different desires and they could not all interact freely. To exploit the discrepancy in prices, the priest moved the camp's cheese from the first bungalow (where it was worth less) to the second bungalow (where it was worth more). Everyone involved in the trade benefited from the priest's enterprise.

A few **entrepreneurs** in the camp hoarded cigarettes and used them to buy up the troops' rations shortly after issue – and then sold the rations just before the next issue, at higher prices. Although these entrepreneurs were pursuing their own private interest, like the priest, they were providing a

An **entrepreneur** is an enterprising person who discovers potentially profitable opportunities and organizes, directs, and manages productive ventures.

service to the other prisoners. They bought the rations when people wanted to get rid of them and sold them when people were running short. The difference between the low price at which they bought and the high price at which they sold gave them the incentive to make the trades, hold on to the rations, and assume the risk that the price might not rise.

Soon, the troops began to use cigarettes as money, quoting prices in packs or fractions of packs. (Only the less desirable brands of cigarettes were used this way; the better brands were smoked.) Because cigarettes were generally acceptable, the soldier who wanted soap no longer had to search out those who might want his jam; he could buy the soap with cigarettes. Even nonsmokers began to accept cigarettes in trade.

This makeshift monetary system adjusted itself to allow for changes in the money supply. When the Red Cross distributed new supplies of cigarettes, prices in terms of cigarettes rose, reflecting the influx of new money. After nights spent listening to nearby bombing, when the nervous prisoners had smoked up their holdings of cigarettes, prices fell. Radford saw a form of social order emerging in these spontaneous, voluntary, and completely undirected efforts. Even in this unlikely environment, the human tendency toward mutually advantageous trade had asserted itself.

Today, markets for numerous new and used products spring up spontaneously in much the same way. At the end of each semester, college students can be found trading books among themselves or standing in line at the bookstore to resell their books. Used-book buyers can save students the time in line by roaming dormitory and classroom hallways offering to buy student books (as well as the textbooks collected by professors) – sometimes at better prices than campus bookstores pay. These buyers then become sellers – for example, on Amazon, where they compete with new copies to future students – the result being an increase in the competitiveness and efficiency of textbook markets and fewer new copies of textbooks sold.

Garage sales are common in practically all communities – with eBay and Facebook Marketplace as large-scale internet equivalents. Indeed, like the priest in the POW camp, many people go to garage sales to buy what they believe they can resell – at a higher price, of course. "Dollar stores" have sprung up all over the U.S. for one purpose: to buy surplus merchandise from manufacturers and sell it at greatly reduced prices to willing customers.

There are even firms that make a market in getting refunds for other firms on late overnight deliveries. Many firms don't think it is worth their time to seek refunds for a few tardy packages. (Overnight delivery firms have an economic incentive to keep late deliveries in check.) However, there are obviously economies to be had from other firms collecting the delivery notices from several firms and sorting the late ones out, with the refunds shared by all concerned.

Gift cards have become a big and profitable business for retailers, partially because many of the cards go unused. Recipients lose them or don't care to shop where the card is redeemable. Companies have created exchanges for gift cards – for example, offering recipients $80 for a $100 gift card. It will then put the card up for sale on its website for more than $80. Recipients can also donate their unused balances to charity through DonorsChoose.org.

Today, we stand witness to a "new economy" on the Internet; many students reading this book will, like the priest in the POW camp, help to develop it. This has obviously brought gains to many firms – most notably Microsoft, Apple, Google, and Amazon – and their customers have gained from higher-quality products and lower prices through competition. But the internet economy has wreaked havoc on other firms – most notably, brick-and-mortar stores and newspapers – that have lost market share or have closed. The expansion of some industries – regardless of whether they are seen as a part of the "old" or "new" economy – and the contraction of others are interrelated for a reason that lies at the heart of economics: we simply can't do everything.

The Economic Problem

Our world is not nearly as restrictive as Radford's POW camp, but it still faces limits. Indeed, if we think seriously about the world around us, we can make two general observations.

First, the world is more or less fixed in size and limited in its known and usable **resources** (given available technology). We can plant more trees, find more oil, and increase our stock of human talent. But there are limits on what we can accomplish with the resources at our disposal, at least within some defined time limit.

Resources are things used in the production of goods and services. There are only so many acres of land, gallons of water, trees, rivers, wind currents, oil and mineral deposits, trained workers, and machines that can be used in any one time period to produce the things we want.

Economists have traditionally grouped resources into four broad categories: land (the surface of the world and everything in nature), labor (the human and mental efforts devoted to production), capital (also called investment goods – for example, machines, buildings), and technology (the knowledge of how resources can be productively combined). To this list, some economists would add a fifth category, *entrepreneurial (and intrapreneurial) talent*. The entrepreneur is critical to the success of any economy, especially if that economy relies heavily on markets. Because entrepreneurs discover more effective and profitable ways of organizing resources to produce the goods and services people want, they are often considered a resource in themselves. Entrepreneurs not only create "better mousetraps," they often do nothing more than what the priest did in the POW camp: find novel ways of redistributing available (but scarce) resources to the benefit of everyone.

Second, in contrast to the world's physical limitations, human wants abound. You might want a top-of-the-line tablet, a self-driving car, more clothes, a big-screen television, seats at a big concert or ballgame. And that's on top of what you already have – the "basics" (e.g., three good meals a day) that you normally take for granted. Even if we had all the money we wanted to spend, save, and give away, we're still short on time. Consider the Garden of Eden: Even in the middle of "plenty," Adam and Eve (as limited humans) had to allocate their scarce time. If they were picking apples, then they weren't pruning the orange trees or laying underneath the shade of a tree.

Bottom line: people want far more than they can ever have. One of the unavoidable conditions of life is the fundamental condition of **scarcity**. Put simply, there isn't enough of everything to go around. Consequently, society must face unavoidable questions: (1) What will be produced? (2) How will those things be produced? (3) Who will be paid what – which relates to who will produce the goods? (4) Perhaps most important, who will determine how the above questions shall be answered?

> **Scarcity** is the fact that we all cannot have everything we want all the time; we have unlimited wants and limited resources.

These questions have no easy answers. We spend our lives attempting to manage them on an individual level. In terms of public policy, the question is always whether to let markets and individuals do what they want or to constrain them through government policy (and if so, how so?). In terms of firms and markets, how do individuals and groups allocate their resources? These questions are fundamental to all fields in business and the social sciences, but to economics in particular. Indeed, economists see the fact of scarcity as the foundation of **economics**. More to the point, economics is a way of *thinking* about how people, individually and collectively in various organizations (including firms), cope with scarcity.

> **Economics** is a method of thinking, founded on the study of how people cope with the pressing (individual and social) choice problems associated with scarcity – with their efforts directed (primarily) toward satisfying as many wants as possible.

The problem of allocating resources among competing wants is not as simple as it may first appear. A key problem is that we have information about our wants and the resources at our disposal that may be known to nobody else. This is a point Leonard Read made concerning what it takes to make a product as simple as a pencil (Read 1983) – and that F. A. Hayek stressed in many of his writings that ultimately gained him a Nobel Prize in Economics (Hayek 1945).

In his short article (in Perspective 1 after this Part A), Read makes the startling observation that no one knows how to make a product as seemingly simple as a common pencil (from scratch). But tens of billions of pencils are made each year, all through markets that mysteriously guide the economic decisions of millions of producers and consumers through multiple layers of production. Hayek stressed that the mystery of production (whether pencils or more complicated goods and services) can be understood by viewing the pricing system as a *decentralized information system* that is critical to coordinating many people's decisions to employ and redeploy the world's scarce resources to satisfy people's wants. Since these wants are known in detail only by the people who have them, this means they can't be known by centralized authorities – who might imagine that they can do what markets do, but can't absorb the vast information required to produce efficiently.

Hayek argued that market prices are especially important because they reveal the relative values of resources and goods, directing people's efforts in optimizing the allocation of resources across space and time. You may know you want a calculator because your statistics class requires you to have one, but even your friends (much less the people at Hewlett-Packard or Samsung) do not yet know your purchase plans. You also may be the only person who knows how much time you want to offer in the labor market – which is determined by how long and intensely you want to devote time to school, work, socializing, etc. At the same time, you know little about the wants and resources of other people around the world (or even colleagues in your study groups).

Before resources can be effectively allocated, the information we hold about our individual wants and resources must somehow be communicated to others. This means that economics must be concerned with systems of communications – for example, the priest in the POW camp who used both words and prices to convey information about how the troops in various bungalows assessed the value he had offered. The field is extensively interested in how information about wants and resources is transmitted through prices in the market process and votes in the political process. Indeed, the "information problem" is often acute within firms, given that the chief executive officer (CEO) often knows little about how to do the jobs at the bottom of the corporate "pyramid." The information problem is one important reason that firms must rely extensively on *incentives* to get their workers (and managers) to use their local information in pursuit of the firm's goals.

Markets such as the POW camp and firms operating within markets emerge in direct response to scarcity. Because people want more than is immediately available, they produce goods and services for trade. By exchanging things they like less for things they like more, they reallocate their resources and enhance their welfare as individuals. As we will see, people organize firms, because the firms are more cost-effective than markets. Firms can be expected to expand only as long as things can be done more cost-effectively through firms than through competitive market trades. This means that many firms fail not only because of things they do wrong (e.g., allow costs to get out of control), but also because market trades between firms become less costly (e.g., through improved telecommunications), causing firms to outsource services and shed employees.

It's tempting to assume that *scarcity* is exclusively a construct of the external physical world. The irony is that the scarcest resource in the world is internal to each of us: the human brain. It is not much larger than a softball and weighs, on average, three pounds. It has about a hundred billion neurons (give or take a few billion), most of which are tied up keeping our complex bodily systems functioning. The relatively small portion of the neurons available for thinking about the external world of scarcity must be used with great care – in the most efficient way we know how. This is where microeconomics comes into the picture. It is a subject that seeks to improve our thinking, so that our brains can economize on themselves and then economize on all the scarce resources in the world around us. We offer this book and course as a way to improve your brainpower and thereby improve business decision-making, productivity, and profitability.

We have heard critics – most recently, behavioral economists and behavioral psychologists – lament the various limitations of people's brains, including those of economics professors! We gladly embrace the criticisms (and cover them in Online Chapter 1), because they suggest that people's brainpower and thinking can be improved. In fact, the criticism gives greater purpose to microeconomics: our limitations should cause people to seek simplified and more efficient ways of thinking about the world.

The Scope of Economics

Business students often associate economics with a rather narrow portion of the human experience: the pursuit of wealth; money and taxes; commercial and industrial life. Critics often suggest that economists are oblivious to the aesthetic and ethical dimensions of human experience. Such criticism is partly justified. Increasingly, however, economists are expanding their horizons and applying the laws of economics to the full spectrum of human activities. For example, the appreciation of a poem or play can be the subject of economic inquiry. Poems and plays, and the time in which to appreciate them, are also scarce.

Jacob Viner, a distinguished economist in the first half of the twentieth century, once defined economics as "what economists do." Today, economists study an increasingly diverse array of topics. As always, they are involved in describing market processes, methods of trade, and commercial and industrial patterns. They also pay considerable attention to poverty and wealth; to racial, sexual, and religious discrimination; to politics and bureaucracy; to crime and criminal law; and to revolution and terrorism. There is even an economics of group interaction, in which economic principles are applied to marital and family issues. And there is an economics of firm organization and the structure of incentives inside firms – where we will focus much of our attention throughout the book.

What is the unifying factor in these diverse inquiries? What distinguishes the economist's work from that of other social scientists? Economists take a distinctive approach to the study of human behavior and use a mode of analysis based on certain presuppositions. For example, much economic analysis starts with the general propositions that people prefer more to fewer of the things they value – and they seek to maximize their welfare by making reasonable, consistent choices in the things they buy and sell. These propositions enable economists to derive the "law of demand" (people will buy more of any good at a lower price than at a higher price, and vice versa, all else constant) and many other principles of human behavior.

One purpose of this book is to describe the economic approach in considerable detail – to develop the commonly accepted principles of economic analysis and demonstrate how they can be used to understand a variety of issues (e.g., pollution, ticket scalping), as well as firms' organizational and financial structures. In every case, economic analysis is useful only if it is based on a sound theory that can be evaluated in terms of real-world experience. This mode of analysis – we dub it the "economic way of thinking" – will appear time and again as you move through your business programs, most prominently in your finance, accounting, marketing, and strategy courses. (And it should make economics come to life as you engage with the media. For example, consider Online Reading 1.1 and 1.2: *New York Times* articles on "The economics of suspense" and "The cost of paying attention." See also: the inherent disincentives created by trying to help the poor in Online Reading 1.3.)

Developing and Using Economic Theories

The real world of economics is staggeringly complex. Each day, billions of people engage in innumerable transactions, only some of them involving money (about 30 percent), and many of them undertaken for conflicting reasons (McMillan 2002, 168–169). To make matters more complicated, people are confronted with terabytes of data coming from their five senses – far more than can be absorbed by the brain. To make sense of all this, people must first economize on their scarce mental powers before they seek to economize on resources in the external world, partially by ignoring or filtering out much sensory data before it has a chance to throttle thinking altogether with "sensory overload." Additionally, we all turn to **theory** to further economize on our highly constrained brainpower.

A **theory** is a model of how the world is put together; it is an attempt to uncover some order in the complex and often seemingly random events of daily life. Theory is how we make sense of the world.

Economic theory is abstract, but not in the sense that its models lack concreteness. On the contrary, good models are laid out with great precision. Theories are simplified models *abstracted from* the complexity of the real world. Economists deliberately simplify their models to best concentrate attention on the problems of greatest interest. As a guiding principle of analysis, economists accept a widely repeated quip from physicist Albert Einstein: "Theories should be as simple as possible, but no simpler."

As explained in Chapter 2, economists assume that people are *rational*, which is to say that they weigh the costs and benefits of options available to them, consistently choosing in such a way as to maximize their well-being. *We even assume that people are more rational than we know them to be*, but only because such an abstraction promotes understanding and offers insights that might not otherwise be achieved.

As a road map is useful because it ignores most of the details between the various points along our route of travel, so models, theories, and statistics are useful because they ignore details that are not (as) relevant to the questions being investigated. A statistic is only a proxy for the world it attempts to measure. Reducing a complex aspect of the world to a series of numbers is ridiculous at some level. But it can be helpful if we understand the statistic's value and its limits. Even powerful models such as "demand and supply" are absurd and wooden if taken too literally or without understanding their limits. But they can still have tremendous explanatory power. Although a theory is not a complete and realistic description of the real world, a good theory will incorporate enough to simulate real life. It should provide some explanation for past experiences and permit reasonably accurate predictions of the future. When you evaluate a new theory, ask yourself:

- Does this theory explain what has been observed?
- Does it provide a better basis for prediction than other theories?

If a theory is "complete," so much the better. But such theories don't come along often – and never in economics (or other social sciences). This would involve explaining amazingly complex interactions among and between many people in their various settings, with much of it driven by subjective evaluations that are largely unknown and unknowable.