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微观经济学原理

（第六版）

高等学校经济学类英文版教材

普通高等教育“十一五”国家级规划教材

N. Gregory Mankiw

Principles of Microeconomics

6th Edition

梁小民　改编

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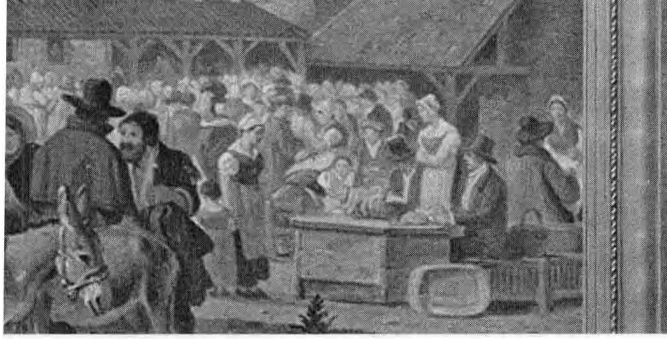


前言

本书是曼昆《经济学原理》中的微观经济学部分，介绍微观经济学的基本概念、基本理论和基本方法。

根据曼昆所下的定义，微观经济学“研究家庭和企业如何作出决策，以及它们如何在市场上相互交易”。这个定义强调，微观经济学研究的对象是家庭和企业。家庭是消费者，企业是生产者，这是经济中最基本的单位。微观经济学研究的是单个经济单位，因此也被称为“个体经济学”。家庭出卖各种生产要素（劳动、资本、土地）获得收入进行消费，企业购买各种生产要素进行生产，并提供各种产品与劳务。这两个单位在市场上进行交易，决定并主导这种交易的是价格。因此，价格形成的机制及其在交易中的作用是微观经济学的核心内容。由于这一原因，人们也把微观经济学称为价格理论。本书讲微观经济学正是围绕价格理论展开的。

第1～3章是全书（包括微观经济学和宏观经济学）的导言，介绍经济学研究的对象与方法。第1章“经济学十大原理”介绍经济学研究的对象。作者把经济学研究的对象分为十个问题。第1～7个问题是微观经济学研究的，第8～10个问题是宏观经济学研究的。把经济学研究的问题概括为十大原理是作者的一个贡献。抓住这十大原理就抓住了经济学的核心问题，便于初学者在内容广泛而复杂的经济学中抓住关键所在。第2章“像经济学家一样思考”介绍经济学的研究方法。经济学认识现实经济的方法是在假设的前提下通过观察、抽象出理论，再通过观察检验理论来建立经济模型。作者用两个经济模型（循环流量图和生产可能性边界）说明了这一点。经济学的分析采用了两种不同的思维方式，即实证分析与规范分析，这两种方法用于不同的目的。实证分析用于寻求经济本身的规律，规范分析用于制定经济政策。第3章“相互依存性与贸易的好处”说明经济中人与人之间、组织与组织之间、国与国之间的经济关系是通过在市场上的相互贸易来实现的，贸易会给各方带来好处。

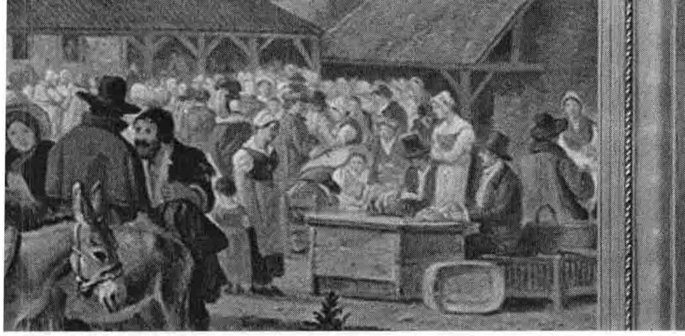
以下各章以价格理论为中心介绍微观经济学的内容。第4章“供给与需求的市场力量”论述价格是如何决定的，以及价格如何调节经济。市场是家庭和企业进行交易的地方，在完全竞争的市场上决定价格的是家庭作为消费者的需求和企业作为生产者的供给。市场上供求相等时决定的价格就是均衡价格，当供求变动时均衡价格也会变动。正是这种价格调节经济运行，这种价格就是亚当·斯密所说的调节经济的“看不见的手”。第5章和第6章是这一章的延伸和深化。第5章“弹性及其运用”进一步说明价格对供求的影响。如果说上一章说明了价格对供求变动方向的影响，即定性分析，那么，这一章就是说明价格变动对供求量的影响，即定量分析。需求弹性要说明价格变动会引起需求量多大变动，供给弹性说明价格变动会引起供给量

多大变动。第6章“供给、需求与政府政策”说明政府政策对价格机制的影响。这些政策包括政府确定价格上限与价格下限，以及税收政策。

第7章与第8章是对市场价格机制的评价。第7章“消费者、生产者和市场效率”论证市场价格机制的优越性，即用消费者剩余和生产者剩余这两个概念说明市场是有效率的。第8章“应用：赋税的代价”说明政府赋税如何扭曲了价格机制，从而降低了市场效率。这是对市场效率的进一步论证。

决定需求的是家庭，即消费者的行为；决定供给的是企业，即生产者的行为。作者在论述了需求与供给之后就要分析家庭与企业行为的决定。家庭的消费行为涉及效用理论这样高深而不易理解的理论，在这本教科书中被放入“深入研究的论题”之中，本改编教材删去了这些内容。因此，论述的重点就在企业的行为。决定企业供给行为的是成本，第9章“生产成本”正是分析企业生产中的各种成本。企业的目标是要实现利润最大化。在前面分析价格机制的一般原理时假设市场是完全竞争的，但在现实中每个企业都有一定的垄断能力，现实中的市场并不是完全竞争的。经济学家把现实中的市场分为完全竞争、垄断、垄断竞争与寡头。完全竞争，即只有竞争而没有一点垄断，垄断，即只有一家企业控制整个市场而没有一点竞争，这两种市场都是极端状态，现实中并不多。现实中的市场介于这两个极端之间，既有垄断又有竞争，或称为不完全竞争。根据垄断与竞争程度的不同分为垄断竞争与寡头。第10～13章分析了不同市场上企业的行为，即产量与价格的决定。这四章的分析是企业作出生产决策的依据，也是政府制定经济政策的基础。经济学家认为，在完全竞争与垄断竞争市场上，市场竞争可以充分发挥作用，价格机制的调节作用是充分的，称为“有效竞争”，政府不用进行干预。但在寡头和垄断市场上，企业垄断程度高，价格机制无法充分发挥作用达到市场效率，因此，政府要用“反垄断法”来干预市场，干预企业的行为。

微观经济学不仅要说明生产，即生产什么和生产多少，而且要说明生产出来的产品如何分配，即为谁生产。第14～16章就是论述分配问题的。第14章“生产要素市场”论述收入分配的原则。市场经济中根据贡献来决定收入分配，即对生产作出多大贡献就获得多少收入。那么，用什么来衡量各种生产要素对生产的贡献呢？经济学家认为，生产要素的价格表示生产要素在生产中的贡献，这样，分配理论实际上就是对价格理论的运用。价格由产品的供求决定，同样，生产要素的价格亦由其供求关系来决定。该章就论证了最主要的生产要素即劳动供求的决定，以及劳动的供求如何决定并影响工资的变动。最后也用同样的原理说明了土地和资本的价格决



定。市场经济的共同特点是收入分配严重的不平等。这种情况不仅不公正，而且不利于社会和谐与稳定。第15章“收入与歧视”和第16章“收入不平等与贫困”正是研究收入不平等的原因及相关的观点与解决方法的。

这本改编版的《微观经济学原理》删去了一些不适用于中国国情的章节，更适合初学者学习。由此出发就可以进入经济学的殿堂。

梁小民

2013年11月

preface
to the student

"Economics is a study of mankind in the ordinary business of life." So wrote Alfred Marshall, the great 19th-century economist, in his textbook, *Principles of Economics.* Although we have learned much about the economy since Marshall's time, this definition of economics is as true today as it was in 1890, when the first edition of his text was published.

Why should you, as a student at the beginning of the 21st century, embark on the study of economics? There are three reasons.

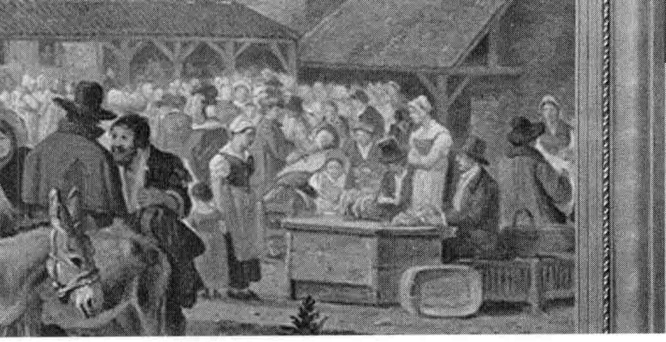
The first reason to study economics is that it will help you understand the world in which you live. There are many questions about the economy that might spark your curiosity. Why are apartments so hard to find in New York City? Why do airlines charge less for a round-trip ticket if the traveler stays over a Saturday night? Why is Johnny Depp paid so much to star in movies? Why are living standards so meager in many African countries? Why do some countries have high rates of inflation while others have stable prices? Why are jobs easy to find in some years and hard to find in others? These are just a few of the questions that a course in economics will help you answer.

The second reason to study economics is that it will make you a more astute participant in the economy. As you go about your life, you make many economic decisions. While you are a student, you decide how many years to stay in school. Once you take a job, you decide how much of your income to spend, how much to save, and how to invest your savings. Someday you may find yourself running a small business or a large corporation, and you will decide what prices to charge for your products. The insights developed in the coming chapters will give you a new perspective on how best to make these decisions. Studying economics will not by itself make you rich, but it will give you some tools that may help in that endeavor.

The third reason to study economics is that it will give you a better understanding of both the potential and the limits of economic policy. Economic questions are always on the minds of policymakers in mayors' offices, governors' mansions, and the White House. What are the burdens associated with alternative forms of taxation? What are the effects of free trade with other countries? What is the best way to protect the environment? How does a government budget deficit affect the economy? As a voter, you help choose the policies that guide the allocation of society's resources. An understanding of economics will help you carry out that responsibility. And who knows: Perhaps someday you will end up as one of those policymakers yourself.

Thus, the principles of economics can be applied in many of life's situations. Whether the future finds you reading the newspaper, running a business, or sitting in the Oval Office, you will be glad that you studied economics.

N. Gregory Mankiw
December 2010



brief contents

Ten Principles of Economics

1

The word *economy* comes from the Greek word *oikonomos*, which means "one who manages a household." At first, this origin might seem peculiar. But in fact, households and economies have much in common.

A household faces many decisions. It must decide which members of the household do which tasks and what each member gets in return: Who cooks dinner? Who does the laundry? Who gets the extra dessert at dinner? Who gets to choose what TV show to watch? In short, the household must allocate its scarce resources among its various members, taking into account each member's abilities, efforts, and desires.

Like a household, a society faces many decisions. A society must find some way to decide what jobs will be done and who will do them. It needs some people to grow food, other people to make clothing, and still others to design computer software. Once society has allocated people (as well as land, buildings, and machines) to various jobs, it must also allocate the output of goods and services they produce. It must decide who will eat caviar and who will eat potatoes. It must decide who will drive a Ferrari and who will take the bus.

The management of society's resources is important because resources are scarce. **Scarcity** means that society has limited resources and therefore cannot produce all the goods and services people wish to have. Just as each member of a household cannot get everything he or she wants, each individual in a society cannot attain the highest standard of living to which he or she might aspire.

scarcity
the limited nature of society's resources

Economics is the study of how society manages its scarce resources. In most societies, resources are allocated not by an all-powerful dictator but through the combined actions of millions of households and firms. Economists therefore study how people make decisions: how much they work, what they buy, how much they save, and how they invest their savings. Economists also study how people interact with one another. For instance, they examine how the multitude of buyers and sellers of a good together determine the price at which the good is sold and the quantity that is sold. Finally, economists analyze forces and trends that affect the economy as a whole, including the growth in average income, the fraction of the population that cannot find work, and the rate at which prices are rising.

economics
the study of how society manages its scarce resources

The study of economics has many facets, but it is unified by several central ideas. In this chapter, we look at *Ten Principles of Economics*. Don't worry if you don't understand them all at first or if you aren't completely convinced. We will explore these ideas more fully in later chapters. The ten principles are introduced here to give you an overview of what economics is all about. Consider this chapter a "preview of coming attractions."

How People Make Decisions

There is no mystery to what an economy is. Whether we are talking about the economy of Los Angeles, the United States, or the whole world, an economy is just a group of people dealing with one another as they go about their lives. Because the behavior of an economy reflects the behavior of the individuals who make up the economy, we begin our study of economics with four principles of individual decision making.

Principle 1: People Face Trade-offs

You may have heard the old saying, "There ain't no such thing as a free lunch." Grammar aside, there is much truth to this adage. To get one thing that we like, we usually have to give up another thing that we like. Making decisions requires trading off one goal against another.

Consider a student who must decide how to allocate her most valuable resource—her time. She can spend all her time studying economics, spend all of it studying psychology, or divide it between the two fields. For every hour she studies one subject, she gives up an hour she could have used studying the other. And for every hour she spends studying, she gives up an hour that she could have spent napping, bike riding, watching TV, or working at her part-time job for some extra spending money.

Or consider parents deciding how to spend their family income. They can buy food, clothing, or a family vacation. Or they can save some of the family income for retirement or the children's college education. When they choose to spend an extra dollar on one of these goods, they have one less dollar to spend on some other good.

When people are grouped into societies, they face different kinds of trade-offs. One classic trade-off is between "guns and butter." The more a society spends on national defense (guns) to protect its shores from foreign aggressors, the less it can spend on consumer goods (butter) to raise the standard of living at home. Also important in modern society is the trade-off between a clean environment and a high level of income. Laws that require firms to reduce pollution raise the cost of producing goods and services. Because of the higher costs, these firms end up earning smaller profits, paying lower wages, charging higher prices, or some combination of these three. Thus, while pollution regulations yield the benefit of a cleaner environment and the improved health that comes with it, the regulations come at the cost of reducing the incomes of the regulated firms' owners, workers, and customers.

efficiency
the property of society getting the most it can from its scarce resources

equality
the property of distributing economic prosperity uniformly among the members of society

Another trade-off society faces is between efficiency and equality. **Efficiency** means that society is getting the maximum benefits from its scarce resources. **Equality** means that those benefits are distributed uniformly among society's members. In other words, efficiency refers to the size of the economic pie, and equality refers to how the pie is divided into individual slices.

When government policies are designed, these two goals often conflict. Consider, for instance, policies aimed at equalizing the distribution of economic well-being. Some of these policies, such as the welfare system or unemployment insurance, try to help the members of society who are most in need. Others, such as the individual income tax, ask the financially successful to contribute more than others to support the government. While achieving greater equality, these policies reduce efficiency. When the government redistributes income from the rich to the poor, it reduces the reward for working hard; as a result, people work less and produce fewer goods and services. In other words, when the government tries to cut the economic pie into more equal slices, the pie gets smaller.

Recognizing that people face trade-offs does not by itself tell us what decisions they will or should make. A student should not abandon the study of psychology just because doing so would increase the time available for the study of economics. Society should not stop protecting the environment just because environmental regulations reduce our material standard of living. The poor should not be ignored just because helping them distorts work incentives. Nonetheless, people are likely to make good decisions only if they understand the options they have available. Our study of economics, therefore, starts by acknowledging life's trade-offs.

Principle 2: The Cost of Something Is What You Give Up to Get It

Because people face trade-offs, making decisions requires comparing the costs and benefits of alternative courses of action. In many cases, however, the cost of an action is not as obvious as it might first appear.

Consider the decision to go to college. The main benefits are intellectual enrichment and a lifetime of better job opportunities. But what are the costs? To answer this question, you might be tempted to add up the money you spend on tuition, books, room, and board. Yet this total does not truly represent what you give up to spend a year in college.

There are two problems with this calculation. First, it includes some things that are not really costs of going to college. Even if you quit school, you need a place to sleep and food to eat. Room and board are costs of going to college only to the extent that they are more expensive at college than elsewhere. Second, this calculation ignores the largest cost of going to college—your time. When you spend a year listening to lectures, reading textbooks, and writing papers, you cannot spend that time working at a job. For most students, the earnings given up to attend school are the largest single cost of their education.

The **opportunity cost** of an item is what you give up to get that item. When making any decision, decision makers should be aware of the opportunity costs that accompany each possible action. In fact, they usually are. College athletes who can earn millions if they drop out of school and play professional sports are well aware that their opportunity cost of college is very high. It is not surprising that they often decide that the benefit of a college education is not worth the cost.

opportunity cost
whatever must be given up to obtain some item

Principle 3: Rational People Think at the Margin

Economists normally assume that people are rational. **Rational people** systematically and purposefully do the best they can to achieve their objectives, given the available opportunities. As you study economics, you will encounter firms that decide how many workers to hire and how much of their product to manufacture and sell to maximize profits. You will also encounter individuals who decide how much time to spend working and what goods and services to buy with the resulting income to achieve the highest possible level of satisfaction.

rational people
people who systematically and purposefully do the best they can to achieve their objectives

Rational people know that decisions in life are rarely black and white but usually involve shades of gray. At dinnertime, the decision you face is not between fasting or eating like a pig but whether to take that extra spoonful of mashed potatoes. When exams roll around, your decision is not between blowing them off or studying 24 hours a day but whether to spend an extra hour reviewing your notes instead of watching TV. Economists use the term **marginal change** to describe a small incremental adjustment to an existing plan of action. Keep in mind that *margin* means "edge," so marginal changes are adjustments around the edges of what you are doing. Rational people often make decisions by comparing *marginal benefits* and *marginal costs*.

marginal change
a small incremental adjustment to a plan of action

For example, consider an airline deciding how much to charge passengers who fly standby. Suppose that flying a 200-seat plane across the United States costs the airline $100,000. In this case, the average cost of each seat is $100,000/200, which is $500. One might be tempted to conclude that the airline should never sell a ticket for less than $500. Actually, a rational airline can often find ways to raise its profits by thinking at the margin. Imagine that a plane is about to take off with ten empty seats, and a standby passenger waiting at the gate will pay $300 for a seat. Should the airline sell the ticket? Of course it should. If the plane has empty seats, the cost of adding one more passenger is tiny. Although the *average* cost of flying a passenger is $500, the *marginal* cost is merely the cost of the bag of peanuts and can of soda that the extra passenger will consume. As long as the standby passenger pays more than the marginal cost, selling the ticket is profitable.

Marginal decision making can help explain some otherwise puzzling economic phenomena. Here is a classic question: Why is water so cheap, while diamonds are so expensive? Humans need water to survive, while diamonds are unnecessary; but for some reason, people are willing to pay much more for a diamond than for a cup of water. The reason is that a person's willingness to pay for a good is based on the marginal benefit that an extra unit of the good would yield. The marginal benefit, in turn, depends on how many units a person already has. Water is essential, but the marginal benefit of an extra cup is small because water is plentiful. By contrast, no one needs diamonds to survive, but because diamonds are so rare, people consider the marginal benefit of an extra diamond to be large.

A rational decision maker takes an action if and only if the marginal benefit of the action exceeds the marginal cost. This principle can explain why airlines are willing to sell a ticket below average cost and why people are willing to pay more for diamonds than for water. It can take some time to get used to the logic of marginal thinking, but the study of economics will give you ample opportunity to practice.

Principle 4: People Respond to Incentives

incentive
something that induces a person to act

An **incentive** is something that induces a person to act, such as the prospect of a punishment or a reward. Because rational people make decisions by comparing costs and benefits, they respond to incentives. You will see that incentives play a central role in the study of economics. One economist went so far as to suggest that the entire field could be summarized simply: "People respond to incentives. The rest is commentary."

Incentives are crucial to analyzing how markets work. For example, when the price of an apple rises, people decide to eat fewer apples. At the same time, apple orchards decide to hire more workers and harvest more apples. In other words, a higher price in a market provides an incentive for buyers to consume less and an incentive for sellers to produce more. As we will see, the influence of prices on the behavior of consumers and producers is crucial for how a market economy allocates scarce resources.

Public policymakers should never forget about incentives: Many policies change the costs or benefits that people face and, therefore, alter their behavior. A tax on gasoline, for instance, encourages people to drive smaller, more fuel-efficient cars. That is one reason people drive smaller cars in Europe, where gasoline taxes are high, than in the United States, where gasoline taxes are low. A gasoline tax also encourages people to carpool, take public transportation, and live closer to where they work. If the tax were larger, more people would be driving hybrid cars, and if it were large enough, they would switch to electric cars.

When policymakers fail to consider how their policies affect incentives, they often end up with unintended consequences. For example, consider public policy regarding auto safety. Today, all cars have seat belts, but this was not true 50 years ago. In the 1960s, Ralph Nader's book *Unsafe at Any Speed* generated much public concern over auto safety. Congress responded with laws requiring seat belts as standard equipment on new cars.

How does a seat belt law affect auto safety? The direct effect is obvious: When a person wears a seat belt, the probability of surviving an auto accident rises. But that's not the end of the story because the law also affects behavior by altering incentives. The relevant behavior here is the speed and care with which drivers operate their cars. Driving slowly and carefully is costly because it uses the driver's time and energy. When deciding how safely to drive, rational people compare, perhaps unconsciously, the marginal benefit from safer driving to the marginal cost. As a result, they drive more slowly and carefully when the benefit of increased safety is high. For example, when road conditions are icy, people drive more attentively and at lower speeds than they do when road conditions are clear.

Consider how a seat belt law alters a driver's cost–benefit calculation. Seat belts make accidents less costly because they reduce the likelihood of injury or death. In other words, seat belts reduce the benefits of slow and careful driving. People respond to seat belts as they would to an improvement in road conditions—by driving faster and less carefully. The result of a seat belt law, therefore, is a larger number of accidents. The decline in safe driving has a clear, adverse impact on pedestrians, who are more likely to find themselves in an accident but (unlike the drivers) don't have the benefit of added protection.

At first, this discussion of incentives and seat belts might seem like idle speculation. Yet in a classic 1975 study, economist Sam Peltzman argued that auto-safety laws have had many of these effects. According to Peltzman's evidence, these laws produce both fewer deaths per accident and more accidents. He concluded that the net result is little change in the number of driver deaths and an increase in the number of pedestrian deaths.

Peltzman's analysis of auto safety is an offbeat and controversial example of the general principle that people respond to incentives. When analyzing any policy, we must consider not only the direct effects but also the less obvious indirect effects that work through incentives. If the policy changes incentives, it will cause people to alter their behavior.

CASE STUDY The Incentive Effects of Gasoline Prices

From 2005 to 2008 the price of oil in world oil markets skyrocketed, the result of limited supplies together with surging demand from robust world growth, especially in China. The price of gasoline in the United States rose from about \$2 to about \$4 a gallon. At the time, the news was filled with stories about how people responded to the increased incentive to conserve, sometimes in obvious ways, sometimes in less obvious ways.

Here is a sampling of various stories:

- "As Gas Prices Soar, Buyers Are Flocking to Small Cars"
- "As Gas Prices Climb, So Do Scooter Sales"
- "Gas Prices Knock Bicycles Sales, Repairs into Higher Gear"
- "Gas Prices Send Surge of Riders to Mass Transit"
- "Camel Demand Up as Oil Price Soars": Farmers in the Indian state of

Rajasthan are rediscovering the humble camel. As the cost of running gas-guzzling tractors soars, even-toed ungulates are making a comeback.

- "The Airlines Are Suffering, But the Order Books of Boeing and Airbus Are Bulging": Demand for new, more fuel-efficient aircraft has never been greater. The latest versions of the Airbus A320 and Boeing 737, the single-aisle workhorses for which demand is strongest, are up to 40% cheaper to run than the vintage planes some American airlines still use.
- "Home Buying Practices Adjust to High Gas Prices": In his hunt for a new

in the news

Incentive Pay

As this article illustrates, how people are paid affects their incentives and the decisions they make. (The article's author, by the way, subsequently became one of the chief economic advisers to President Barack Obama.)

Where the Buses Run on Time

BY AUSTAN GOOLSBEE

On a summer afternoon, the drive home from the University of Chicago to the north side of the city must be one of the most beautiful commutes in the world. On the left on Lake Shore Drive you pass Grant Park, some of the world's first skyscrapers, and the Sears Tower. On the right is the intense blue of Lake Michigan. But for all the beauty, the traffic can be hell. So, if you drive the route every day, you learn the shortcuts. You know that if it backs up from the Buckingham Fountain all the way to McCormick Place, you're better off taking the surface streets and getting back onto Lake Shore Drive a few miles north.

A lot of buses, however, wait in the traffic jams. I have always wondered about that: Why don't the bus drivers use the shortcuts? Surely they know about them—they drive the same route every day, and they probably avoid the traffic when they drive their own cars. Buses don't stop on Lake Shore Drive, so they wouldn't strand anyone by detouring around the congestion. And when buses get delayed in heavy traffic, it wreaks havoc on the scheduled service. Instead of arriving once every 10 minutes, three buses come in at the same time after half an hour. That sort of bunching is the least efficient way to run a public transportation system. So, why not take the surface streets if that would keep the schedule properly spaced and on time?

You might think at first that the problem is that the drivers aren't paid enough to strategize. But Chicago bus drivers are the seventh-highest paid in the nation; full-timers earned more than $23 an hour, according to a November 2004 survey. The problem may have to do not with how much they are paid, but how they are paid. At least, that's the implication of a new study of Chilean bus drivers by Ryan Johnson and David Reiley of the University of Arizona and Juan Carlos Muñoz of Pontificia Universidad Católica de Chile.

Companies in Chile pay bus drivers one of two ways: either by the hour or by the passenger. Paying by the passenger leads to significantly shorter delays. Give them incentives, and drivers start acting like regular people do. They take shortcuts when the traffic is bad. They take shorter meal breaks and bathroom breaks. They want to get on the road and pick up more passengers as quickly as they can. In short, their productivity increases….

Not everything about incentive pay is perfect, of course. When bus drivers start moving from place to place more quickly, they get in more accidents (just like the rest of us). Some passengers also complain that the rides make them nauseated because the drivers stomp on the gas as soon as the last passenger gets on the bus. Yet when given the choice, people overwhelmingly choose the bus companies that get them where they're going on time. More than 95 percent of the routes in Santiago use incentive pay.

Perhaps we should have known that incentive pay could increase bus driver productivity. After all, the taxis in Chicago take the shortcuts on Lake Shore Drive to avoid the traffic that buses just sit in. Since taxi drivers earn money for every trip they make, they want to get you home as quickly as possible so they can pick up somebody else.

Source: Slate.com, March 16, 2006.

home, Demetrius Stroud crunched the numbers to find out that, with gas prices climbing, moving near an Amtrak station is the best thing for his wallet.

- "Gas Prices Drive Students to Online Courses": For Christy LaBadie, a sophomore at Northampton Community College, the 30-minute drive from her home to the Bethlehem, Pa., campus has become a financial hardship now that gasoline prices have soared to more than $4 a gallon. So this semester she decided to take an online course to save herself the trip—and the money.
- "Diddy Halts Private Jet Flights Over Fuel Prices": Fuel prices have grounded an unexpected frequent-flyer: Sean "Diddy" Combs. . . . The hip-hop mogul said he is now flying on commercial airlines instead of in private jets, which Combs said had previously cost him $200,000 and up for a roundtrip between New York and Los Angeles. "I'm actually flying commercial," Diddy said before walking onto an airplane, sitting in a first-class seat and flashing his boarding pass to the camera. "That's how high gas prices are."

Many of these developments proved transitory. The economic downturn that began in 2008 and continued into 2009 reduced the world demand for oil, and the price of gasoline declined substantially. No word yet on whether Mr. Combs has returned to his private jet. ■

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Hip-hop mogul Sean "Diddy" Combs responds to incentives.

QUICK QUIZ *Describe an important trade-off you recently faced. • Give an example of some action that has both a monetary and nonmonetary opportunity cost. • Describe an incentive your parents offered to you in an effort to influence your behavior.*

How People Interact

The first four principles discussed how individuals make decisions. As we go about our lives, many of our decisions affect not only ourselves but other people as well. The next three principles concern how people interact with one another.

Principle 5: Trade Can Make Everyone Better Off

You may have heard on the news that the Japanese are our competitors in the world economy. In some ways, this is true because American and Japanese firms produce many of the same goods. Ford and Toyota compete for the same customers in the market for automobiles. Apple and Sony compete for the same customers in the market for digital music players.

Yet it is easy to be misled when thinking about competition among countries. Trade between the United States and Japan is not like a sports contest in which one side wins and the other side loses. In fact, the opposite is true: Trade between two countries can make each country better off.

To see why, consider how trade affects your family. When a member of your family looks for a job, he or she competes against members of other families who are looking for jobs. Families also compete against one another when they go shopping because each family wants to buy the best goods at the lowest prices. In a sense, each family in the economy is competing with all other families.

Despite this competition, your family would not be better off isolating itself from all other families. If it did, your family would need to grow its own food, make its own clothes, and build its own home. Clearly, your family gains much from its ability to trade with others. Trade allows each person to specialize in the

FROM THE WALL STREET JOURNAL—PERMISSION, CARTOON FEATURES SYNDICATE

"For $5 a week you can watch baseball without being nagged to cut the grass!"

activities he or she does best, whether it is farming, sewing, or home building. By trading with others, people can buy a greater variety of goods and services at lower cost.

Countries as well as families benefit from the ability to trade with one another. Trade allows countries to specialize in what they do best and to enjoy a greater variety of goods and services. The Japanese, as well as the French and the Egyptians and the Brazilians, are as much our partners in the world economy as they are our competitors.

Principle 6: Markets Are Usually a Good Way to Organize Economic Activity

The collapse of communism in the Soviet Union and Eastern Europe in the 1980s may be the most important change in the world during the past half century. Communist countries worked on the premise that government officials were in the best position to allocate the economy's scarce resources. These central planners decided what goods and services were produced, how much was produced, and who produced and consumed these goods and services. The theory behind central planning was that only the government could organize economic activity in a way that promoted economic well-being for the country as a whole.

market economy
an economy that allocates resources through the decentralized decisions of many firms and households as they interact in markets for goods and services

Most countries that once had centrally planned economies have abandoned the system and are instead developing market economies. In a **market economy**, the decisions of a central planner are replaced by the decisions of millions of firms and households. Firms decide whom to hire and what to make. Households decide which firms to work for and what to buy with their incomes. These firms and households interact in the marketplace, where prices and self-interest guide their decisions.

At first glance, the success of market economies is puzzling. In a market economy, no one is looking out for the economic well-being of society as a whole. Free markets contain many buyers and sellers of numerous goods and services, and all of them are interested primarily in their own well-being. Yet despite decentralized decision making and self-interested decision makers, market economies have proven remarkably successful in organizing economic activity to promote overall economic well-being.

In his 1776 book *An Inquiry into the Nature and Causes of the Wealth of Nations*, economist Adam Smith made the most famous observation in all of economics: Households and firms interacting in markets act as if they are guided by an "invisible hand" that leads them to desirable market outcomes. One of our goals in this book is to understand how this invisible hand works its magic.

As you study economics, you will learn that prices are the instrument with which the invisible hand directs economic activity. In any market, buyers look at the price when determining how much to demand, and sellers look at the price when deciding how much to supply. As a result of the decisions that buyers and sellers make, market prices reflect both the value of a good to society and the cost to society of making the good. Smith's great insight was that prices adjust to guide these individual buyers and sellers to reach outcomes that, in many cases, maximize the well-being of society as a whole.

Smith's insight has an important corollary: When the government prevents prices from adjusting naturally to supply and demand, it impedes the invisible hand's ability to coordinate the decisions of the households and firms that make up the economy. This corollary explains why taxes adversely affect the allocation of resources, for they distort prices and thus the decisions of households and firms. It also explains the great harm caused by policies that directly control prices, such as rent control. And it explains the failure of communism. In communist countries, prices were not determined in the marketplace but were dictated by central planners. These planners lacked the necessary information about consumers' tastes and producers' costs, which in a market economy is reflected in prices. Central planners failed because they tried to run the economy with one hand tied behind their backs—the invisible hand of the marketplace.

Principle 7: Governments Can Sometimes Improve Market Outcomes

If the invisible hand of the market is so great, why do we need government? One purpose of studying economics is to refine your view about the proper role and scope of government policy.

One reason we need government is that the invisible hand can work its magic only if the government enforces the rules and maintains the institutions that are key to a market economy. Most important, market economies need institutions to enforce **property rights** so individuals can own and control scarce resources. A farmer won't grow food if he expects his crop to be stolen; a restaurant won't serve meals unless it is assured that customers will pay before they leave; and an entertainment company won't produce DVDs if too many potential customers avoid paying by making illegal copies. We all rely on government-provided police and courts to enforce our rights over the things we produce—and the invisible hand counts on our ability to enforce our rights.

property rights
the ability of an individual to own and exercise control over scarce resources

Yet there is another reason we need government: The invisible hand is powerful, but it is not omnipotent. There are two broad reasons for a government to intervene in the economy and change the allocation of resources that people would choose on their own: to promote efficiency or to promote equality. That is, most policies aim either to enlarge the economic pie or to change how the pie is divided.

market failure
a situation in which a market left on its own fails to allocate resources efficiently

Consider first the goal of efficiency. Although the invisible hand usually leads markets to allocate resources to maximize the size of the economic pie, this is not always the case. Economists use the term **market failure** to refer to a situation in which the market on its own fails to produce an efficient allocation of resources. As we will see, one possible cause of market failure is an **externality,** which is the impact of one person's actions on the well-being of a bystander. The classic example of an externality is pollution. Another possible cause of market failure is **market power,** which refers to the ability of a single person (or small group) to unduly influence market prices. For example, if everyone in town needs water but there is only one well, the owner of the well is not subject to the rigorous competition with which the invisible hand normally keeps self-interest in check. In the presence of externalities or market power, well-designed public policy can enhance economic efficiency.

externality
the impact of one person's actions on the well-being of a bystander

market power
the ability of a single economic actor (or small group of actors) to have a substantial influence on market prices

Now consider the goal of equality. Even when the invisible hand is yielding efficient outcomes, it can nonetheless leave sizable disparities in economic well-being. A market economy rewards people according to their ability to produce things that other people are willing to pay for. The world's best basketball player earns more than the world's best chess player simply because people are willing to pay more to watch basketball than chess. The invisible hand does not ensure that everyone has sufficient food, decent clothing, and adequate healthcare. This inequality may, depending on one's political philosophy, call for gov-