

# ECONOMICS

## Individual and Social Choice



Parkin



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# ECONOMICS

## INDIVIDUAL AND SOCIAL CHOICE

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Michael Parkin  
*University of Western Ontario*



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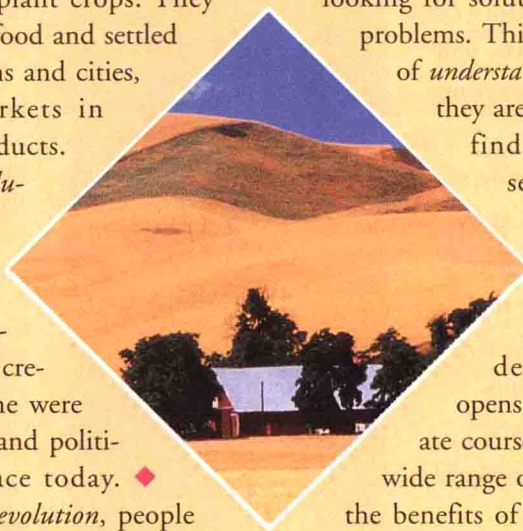
## Your Economics Course

You are living at a time that future historians will call the *Information Revolution*. We reserve the word “Revolution” for big events that influence all future generations.

◆ During the *Agricultural Revolution*, which occurred 10,000 years ago, people learned to domesticate animals and plant crops. They stopped roaming in search of food and settled in villages and eventually towns and cities, where they developed markets in which to exchange their products.

◆ During the *Industrial Revolution*, which began 240 years ago, people used science to create new technologies. This revolution brought extraordinary wealth for most, but created conditions in which some were left behind. It brought social and political tensions that we still face today. ◆

During today's *Information Revolution*, people who have the ability and opportunity to embrace the new technologies are prospering on an unimagined scale. But the incomes and living standards of the less educated are falling behind, and social and political tensions are increasing. Today's revolution has a global dimension. Some of the winners live in previously poor countries in Asia, and some of the losers live in the United States. ◆ So you are studying economics at an interesting time. Whatever *your* motivation is for studying economics, *my* objective is to help you do well in your course, to enjoy it, and to develop a deeper understanding of the economic world around you. ◆ There are three reasons why I hope that we both succeed. First, a decent



understanding of economics will help you become a full participant in the Information Revolution. Second, an understanding of economics will help you play a more effective role as a citizen and voter and enable you to add your voice to those who are looking for solutions to our social and political problems. Third, you will enjoy the sheer fun of *understanding* the forces at play and how they are shaping our world. ◆ If you do find economics interesting, think seriously about majoring in the subject. A degree in economics gives the best training available in problem solving, offers lots of opportunities to develop conceptual skills, and opens doors to a wide range of graduate courses, including the MBA, and to a wide range of jobs. You can read more about the benefits of an economics degree in Robert Whaples's essay in your *Study Guide*. ◆ Economics was born during the Industrial Revolution. We'll look at its birth and meet its founder, Adam Smith. Then we'll talk with one of today's creative economic thinkers, Professor Mancur Olson of the University of Maryland. ◆ In the next three chapters, we'll begin to study the science that Adam Smith began. You will encounter the questions, methods, and ideas of economics in Chapter 1. And in Chapter 3, you will learn about Adam Smith's key insight: specialization and exchange bring economic wealth. In optional Chapter 2, you have an opportunity to learn about the graph tools that we use in economics. But first, let's meet Adam Smith.



## Understanding the Sources of Economic Wealth

### The Father of Economics: Adam Smith

Adam Smith was a giant of a scholar who contributed to ethics and jurisprudence as well as economics. Born in 1723 in Kirkcaldy, a small fishing town near Edinburgh, Scotland, Smith was the only child of the town's customs officer (who died before Adam was born).

His first academic appointment, at age 28, was as Professor of Logic at the University of Glasgow. He subsequently became tutor to a wealthy Scottish duke, whom he accompanied on a two-year grand European tour, following which he received a pension of £300 a year—ten times the average income at that time.

With the financial security of his pension, Smith devoted ten years to writing *An Inquiry into the Nature and Causes of the Wealth of Nations*, which was published in 1776. Many people had written on economic issues before Adam Smith, but he made economics a science. Smith's account was so broad and authoritative that no subsequent writer on economics could advance ideas without tracing their connections to those of Adam Smith.

*"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."*

ADAM SMITH

THE WEALTH OF NATIONS



### The Issues and Ideas

Why are some nations wealthy while others are poor? This question lies at the heart of economics. And it leads directly to a second question: What can poor nations do to become wealthy?

Adam Smith, who is regarded by many scholars as the founder of economics, attempted to answer these questions in his book *The Wealth of Nations*, published in 1776. Smith was pondering these questions at the height of the Industrial Revolution. During these years, new technologies were invented and applied to the manufacture of cotton and wool cloth, iron, transportation, and agriculture.

Smith wanted to understand the sources of economic wealth, and he brought his acute powers of observation and abstraction to bear on the question. His answer:

- The division of labor
- Free markets

The division of labor—breaking tasks down into simple tasks and becoming skilled in those tasks—is the source of “the greatest improvement in the productive powers of labor,” said Smith. The division of labor became even more productive when it was applied to creating new technologies. Scientists and engineers, trained in extremely narrow fields, became specialists at inventing. Their powerful skills accelerated the advance of technology, so by



the 1820s, machines could make consumer goods faster and more accurately than any craftsman could. And by the 1850s, machines could make other machines that labor alone could never have made.

But, said Smith, the fruits of the division of labor are limited by the extent of the market. To make the market as large as possible, there must be no impediments to free trade both within a country and among countries. Smith argued that when each person makes the best possible economic choice, that choice leads as if by “an invisible hand” to the best outcome for society as a whole. The butcher, the brewer, and the baker each pursue their own interests but, in doing so, also serve the interests of everyone else.

### THEN...

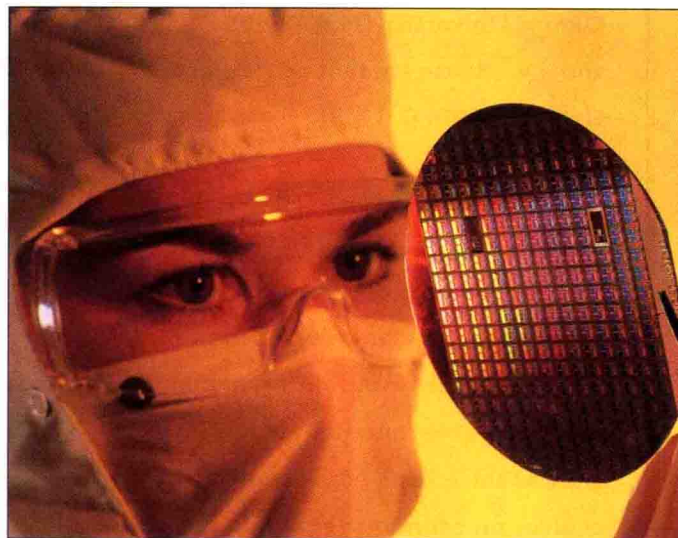
Adam Smith speculated that one person, working hard, using the hand tools available in the 1770s, might possibly make 20 pins a day. Yet, he observed, by using those same hand tools but breaking the process into a number of individually small operations in which people specialize—by the division of labor—ten people could make a staggering 48,000 pins a day. One draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds

it. Three specialists make the head, and a fourth attaches it. Finally, the pin is polished and packaged. But a large market is needed to support the division of labor: One factory employing ten workers would need to sell more than 15 million pins a year to stay in business.

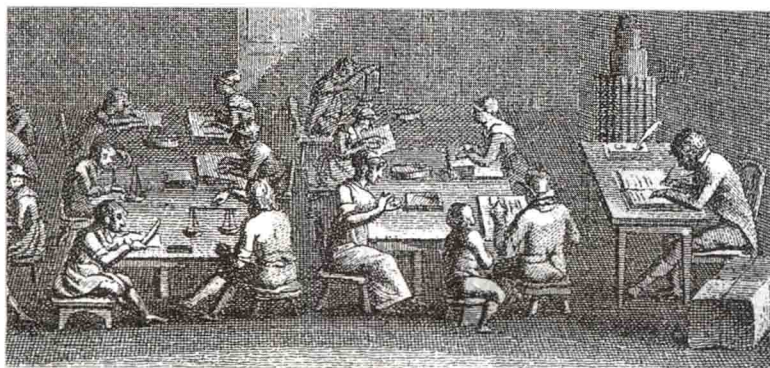
### ...AND NOW

If Adam Smith were here today, he would be fascinated by the computer chip. He would see it as an extraordinary example of the productivity of the division of labor and of the use of machines to make machines that make other machines. From a design of a chip's intricate circuits, cameras transfer an image to glass plates that work like stencils. Workers prepare silicon wafers on which the circuits are printed. Some slice the wafers, others polish them, others bake them, and yet others coat them with a light-sensitive chemical. Machines transfer a copy of the circuit onto

the wafer. Chemicals then etch the design onto the wafer. Further processes deposit atom-sized transistors and aluminum connectors. Finally, a laser separates the hundreds of chips on the wafer. Every stage in the process of creating a computer chip uses other computer chips. And like the pin of the 1770s, the computer chip of the 1990s benefits from a large market—a global market—to buy chips in the huge quantities in which they are produced efficiently.



**Many economists have worked on the big themes that Adam Smith began. One of these economists is Mancur Olson, of the University of Maryland, whom you can meet on the following pages.**



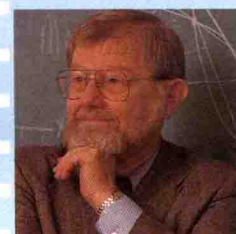
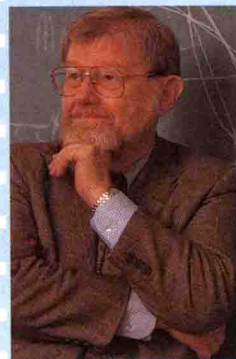
# Talking with

**Mancur Olson, Jr.,** is

Distinguished University Professor of Economics at the University of Maryland, a position he has held since 1978. Professor Olson was born in Grand Forks, North Dakota, in 1932. He was an undergraduate at North Dakota State University, a Rhodes Scholar at Oxford University (M.A. 1960), and a graduate student at Harvard University (Ph.D. 1963).

Professor Olson's research covers a wide area, and his major work is on the problems that lead to and are caused by collective choices by groups such as businesses, labor unions, or governments. He has studied the effects of collective choices on economic growth and on the transition from Communism to a market economy.

Michael Parkin talked with Professor Olson about his work, how it connects with the origins of economics and the work of Adam Smith, and the insights it offers us in facing today's problems.



**What attracted you to economics?**

I became enchanted with the first economics book that I read, *Defense Without Inflation* by Albert Gaylord Hart. I had never before come upon anything that used logical deduction from basic assumptions to derive general principles about how the world worked. The fun and relevance of economics captivated me and made me want to be an economist. When economics writing and teaching are really good, they make clear what a wonderful and fascinating subject economics is.

**Can you describe the connection between this set of ideas and your own and the earlier ideas of Adam Smith?**

I'm enormously indebted to Adam Smith and to the other great economists who have written over the last two and a quarter centuries. Long ago the great physicist Isaac Newton said that if he was able to see farther, it was because he stood on the shoulders of giants. Not only do economists of today have the legacy of Adam Smith, but also other giants such as Ricardo, Malthus, Mill, and Marshall. Thus the economist today stands on the shoulders of giants standing on shoulders of giants—on a great pyramid of genius.

**Adam Smith thought that he understood the major reason for differences in the wealth of nations, and he attributed this mainly to the extent to which people exploited the advantages of the division of labor and specialization on the one hand and then coordinated their individual activities by allowing self-interest to rule in the marketplace. Was Smith right?**

Adam Smith put forth one of the most important truths ever told, but it's still not the whole truth. What he neglected to point out is that, to achieve prosperity, societies need what I call "market-augmenting government." Many suppose that governments only repress or interfere with markets, but the richest societies have governments that, on



balance, increase the number of markets. In an anarchy, people are fighting instead of trading. The government that replaces the anarchy is already augmenting markets because a peaceful order increases the incentive to produce and to trade.

Many people think that once there is peace, all the needed markets arise spontaneously, but this is true of only one of the two types of markets. One kind of market does arise simply because the gains from trade are often very large and the parties can reap these gains without any outside help. When people trade goods and cash on the spot, these trades are self-enforcing. When trades are self-enforcing, markets spring up by themselves, and if governments make them illegal, they may even exist as black markets.

The other kind of market exists only when there is third-party enforcement of contracts. Consider long-term loans. A lender has to give up the money at the outset, so the lender is a fool to lend unless he or she can be reasonably confident that the money will be paid back with interest. Thus lenders lend and borrowers can borrow only if an impartial third party, such as the government's legal system, will enforce the loan contract, often by seizing the assets purchased with the loan in the interest of the lender. The gains from trade in capital markets, insurance markets, and many other markets can be realized only if there is a contract-enforcing and thus market-augmenting government. The richest (or First World) countries have such governments and thus have not only self-enforcing markets but also a huge range of markets that depend upon third-party enforcement. By contrast, the countries of the Third World and those that are in transition from Communism (the Second World) do not have mar-

ket-augmenting governments, and they usually have little more than self-enforcing markets.

#### **You place a great deal of emphasis on collective action. Why?**

While most goods and services are provided most efficiently through the market, there are some goods and services that the market cannot provide. Firms can make money producing the kinds of goods that we find in the stores because they can keep us from getting the goods unless we pay the going price. But there are other kinds of goods that are collective or public goods—goods that, if available to anyone, are automatically available to everyone in some category or country, whether or not a person contributed anything toward the cost of providing the good. A population cannot obtain such goods through voluntary or market behavior. Virtually everyone prefers clean air to polluted air, but that does not mean that the people in a metropolitan area will voluntarily spend a few hundred extra dollars to have their cars equipped with pollution abatement technology. If there were, say, a million individuals in a metropolitan area, a typical individual would get only about one millionth of the benefit from the increment in clean air that resulted because that individual paid for pollution abatement technology. But that individual would pay the whole cost of any pollution abatement technology that the individual purchased. A person would also obtain the benefit of any pollution abatement by others, whether or not that person had done anything to reduce pollution or not.

This means that, even if absolutely everyone agreed that clean air was worth more than its cost and everyone would vote in favor of making the pollution abatement technology compulsory,

no one individual would gain from voluntarily contributing to or “buying” this good. Voluntary or market mechanisms therefore cannot provide any substantial population with pollution abatement or any other collective good. This is the paradoxical logic of collective action: Rational individual behavior leads to a collectively irrational outcome. It is because of the logic of collective action that certain goods and services, such as law and order and national defense, have to be funded through compulsory taxation. It is because of this logic that we need government.

This logic also helps to explain the behavior of some types of non-governmental organizations. Consider, for example, the benefits that a lobby provides to an industry. If a lobby gets a tariff for an

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*A key idea is that the incentive structures of societies overwhelmingly determine how well their economies perform.*

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industry, the price rises for all of the producers in that industry. Every producer in the industry gets the benefit of the tariff, whether that producer paid any of the costs of the lobbying or not. Therefore lobbying organizations provide a benefit that is a collective good to their constituents. Similarly, by restricting output and raising prices, cartels also provide a collective good to those who sell the product that benefits from the monopoly price.



**What are the key ideas and insights that continually inform you and constitute the foundations of your work?**

A key idea is that the incentive structures of societies overwhelmingly determine how well their economies perform. One important determinant of this is the power of the special interest organizations that I mentioned in response to your last question. As time goes on in stable democracies, more organizations representing the firms or workers in an industry or occupation develop the selective incentives that enable them to overcome the difficulties of collective action. Each individual industry is small in relation to the economy as a whole. Suppose, for the sake of easy arithmetic, that the firms or workers in a special interest organization earn exactly 1 percent of the nation's income. Then they gain from using their lobbying or cartel power to change the distribution of income in their favor. They seek such things as tariff protection, tax loopholes, and higher prices or wages. This makes the economy less productive. The members of the special interest organization will, when they earn 1 percent of income, bear on the average only about 1 percent of the total loss arising from the redistribution to themselves, but they receive everything that is redistributed to them. Thus they gain from their lobbying or cartel power until the nation's income falls by a hundred times as much as they obtain! So an economy with a dense network of special interest organizations is like a china shop filled with wrestlers battling over its contents—and breaking much more than they carry away.

Another important determinant of the structure of incentives is the quality of the legal system's enforcement of contracts and com-

pany law and its protection of property rights. This mainly determines whether a society can mobilize the capital—and the modern technologies that are normally embodied in capital goods—needed for either capital-intensive or large scale production. Most of the countries in the First World have the rule of law with respect to property and contract as to other things. Most countries in the Second and Third Worlds do not have the rule of law and thus also lack good property and contract rights. This is, I believe, the single most important reason why the First World

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*Economic development requires ... governments so strong that they're expected to last indefinitely but so inhibited that they never abridge individual rights.*

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countries are rich and the countries of the Second and the Third Worlds are mostly still poor.

The structure of incentives that a society needs to prosper does not spring up spontaneously

but is a result of social accumulation and governmental design. There is no private property, for example, without government; there may be possessions, in the sense that a dog possesses a bone, but no socially sanctioned property right. Just as governments are indispensable for private property, so they are often the greatest threat to private property. Governments have the power to seize whatever property they want. In much of the world, private property is insecure because governments often expropriate it or because governments are so unstable or weak that individuals cannot be sure the government will be able to protect private property indefinitely. Economic development requires something that's rather rare: governments so strong that they're expected to last indefinitely but so inhibited that they never abridge individual rights.

**Is an economics degree a sensible place to begin preparing for a twenty-first century career?**

Economics, far more than any other social science, has a body of powerful ideas that illuminate the problems that individuals and societies face. Economics ideas will be indispensable in the next century as in the present one. The problem is to make their value apparent to the student. Some economics instruction sets out the logic of models without relating them frequently to observation. It's said, "The glory of opera is that it is words and music," and the glory of economics is that it is both logic and observation. Only when the two go together—only when the teacher of economics makes it clear how the logic of economic theory illuminates what we observe around us—does the great practical value of economics become apparent.



## 1

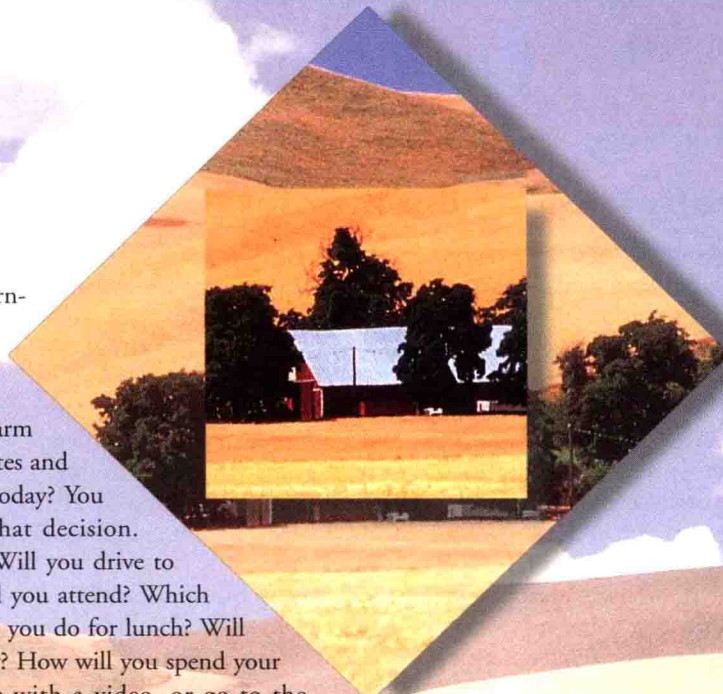
## Chapter

# What is Economics?

From the moment you wake up each morning to the moment you fall asleep again each night, your life is filled with *choices*. Your first choice is when to get up. Will you start running the moment the alarm goes off, or will you linger for a few minutes and listen to the radio? What will you wear today? You check the weather forecast and make that decision. Then, what will you have for breakfast? Will you drive to school or take the bus? Which classes will you attend? Which assignments will you complete? What will you do for lunch? Will you play tennis, swim, run, or skate today? How will you spend your evening? Will you study, relax at home with a video, or go to the movies? ♦ You face decisions like these every day. But on some days, you face choices that can change the entire direction of your life. What will you study? Will you major in economics, business, law, or film? ♦

While you are making your own decisions, other people are making theirs. And some of the decisions that other people make will have an impact on your own subsequent decisions. Your school decides its course offerings for next year. Stephen Spielberg decides what his next movie will be. General Motors decides what new models to introduce and how many of this year's models to produce. A team of eye

doctors decides on a new experiment that will lead them to a cure for nearsightedness. The U.S. Congress decides to cut defense spending and to lower taxes. The Federal Reserve Board decides to raise interest rates. ♦ All these choices and the decisions made by you and everyone else are examples of economics in your life. ♦ This chapter takes a first look at the subject you are about to study. It defines economics. Then it expands on that definition with five big questions that economists try to answer and eight big ideas that define the economic way of thinking. These questions and ideas are the foundation on which your course is built. The chapter concludes with a description of how economists go about their work, the scientific method they use, and the pitfalls they try to avoid. When you have completed your study of this chapter, you will have a good sense of what economics is about and you'll be ready to start learning economics and using it to gain a new view of the world.



## A Day in Your Life

### After studying this chapter, you will be able to:

- Define economics
- Explain the five big questions that economists seek to answer
- Explain eight ideas that define the economic way of thinking
- Describe how economists go about their work



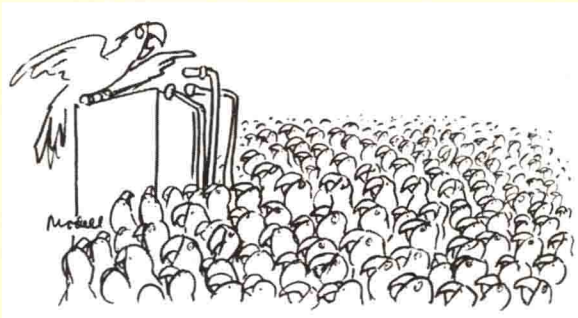
# Big Economic Questions

## A Definition of Economics

All economic questions and problems arise from scarcity—they arise because our wants exceed the resources available to satisfy them.

We want good health and long life, material comfort, security, physical and mental recreation, and knowledge. None of these wants is completely satisfied for everyone, and everyone has some unsatisfied wants. While many people have all the material comfort they want, many others do not. And no one feels entirely satisfied with her or his state of health and expected length of life. No one feels entirely secure, even in the post-Cold War era, and no one has enough time for sport, travel, vacations, movies, theater, reading, and other leisure pursuits.

The poor and the rich alike face scarcity. A child wants a 75¢ can of soft drink and a 50¢ pack of gum but has only \$1.00 in her pocket. She experiences scarcity. A student wants to go to a party on Saturday night but also wants to spend that same night catching up on late assignments. He experiences scarcity. A millionaire wants to spend the weekend playing golf *and* attending a business strategy meeting and cannot do both. She experiences scarcity. Even parrots face scarcity—there just aren't enough crackers to go around!



Not only do I want a cracker—we all want a cracker!

Drawing by Modell; ©1985 The New Yorker Magazine, Inc.

Faced with scarcity, we must *choose* among the available alternatives.

**Economics** is the *science of choice*—the science that explains the choices we make and how those choices change as we cope with scarcity.

All economic choices can be summarized in five big questions about the goods and services we produce. These questions are: What? How? When? Where? Who?

**1** What goods and services are produced and in what quantities?

Goods and services are all the things that we value and are willing to pay for. We produce a dazzling array of goods and services that range from necessities such as houses to leisure items such as camping vehicles and equipment. We build more than a million new homes every year. And these homes are more spacious and better equipped than they were 20 years ago. We make several mil-

