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What Is Economics?

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Unfortunately, there is no single or simple answer to this question. In the most basic sense, economics is the study of how individuals or communities survive and reproduce using scarce resources. Indeed, this definition could apply to all life forms as they pursue their successful evolution over time. Using this approach, we might, for example, examine "bumblebee economics," "bluebird economics," or the complex interrelationships of a biological community, such as a prairie or rain forest.[1*]

Of course, most of our emphasis in this book will be on human societies, in which economics originally meant *household management*. Still, the **economic problem** is the same: how best to use scarce resources. Household resources may include a family's money, time, working and living space, and so on. Of course, our human objectives are much more complicated than simple survival. People have a wide variety of economic desires, including (among other things) general comfort, financial security, interesting diversions, recreational pursuits, and health care. In fact, the economic wants of most households or individuals appear for all practical purposes to be *unlimited.*

*Notes appear on pages 321–325 in the back of the book.

We are also different from other animals in that we are able to make *deliberate choices* as to how our limited resources will be used. Thus, a basic definition of economics might go something like this: *economics is the study of how an individual or a household chooses to use limited resources to best meet its unlimited wants.*

Now let's extend our view from the household economy to the national economy. The basic economic problem is still the same: the nation's resources are limited. Our material demands, however, tend to be unlimited, and the nation must learn how to best organize its resources to satisfy its material wants. Unwise use of resources—whether by consumers, businesses, or governments—can bring about such unfortunate results as unemployment, inflation, poverty, and (in extreme cases) hunger or starvation. The study of economics can help us understand how we can avoid the mismanagement of national resources.

National Resources

What exactly then are our *national economic resources?* The first and primary resource is **labor:** the millions of men and women in the U.S. labor force (the doctor, the farmer, the butcher, the assembly-line worker, and so on). Labor is the *human* element in the production process.

The next national economic resource is **land.** Our land resources include every natural resource above, on, and below the soil. Air is a land resource, as is farmland and the mineral ores and petroleum in the crust of the earth. Land resources are distinguished by the fact that we cannot make more of them. The earth has only so much topsoil and so much oil. Once the topsoil is destroyed[2] and the oil is burned up, they will be gone forever.

The third national resource is **capital.** Many people think that "capital" means money. You often hear people say, "I need to raise (so much) capital for my new project," but what they are actually referring to is financial capital. To the economist, however, *capital* means the physical tools that help workers produce goods and services. In other words, *capital goods* are human-made, can be reproduced or replaced, and tend to increase the productivity of labor.

What are some examples of capital goods? The typewriter that I use is a capital good. It is a tool that increases my output; it's human-made (unlike land resources); and, once it wears out, I can replace it. The pen that you wrote your last check with is a capital good, and so is the car that gets you to work or school. In fact, all machinery, tools, buildings, plants, and equipment are capital resources. Now you can see that there is much more to the meaning of capital than just plain money. Obviously, capital goods are very important in determining the nation's level of wealth and economic growth.

Finally, we come to that elusive resource called **management.** The manager is quite special in our economy; managers coordinate and organize all other resources in order to produce and market the products and services that people want, thereby creating a *profit.* In earlier days, the manager was called an "entrepreneur"; we think, as examples, of Henry Ford and Andrew Carnegie as large-scale managers personifying this scarce resource. Perhaps the days of the great manufacturing entrepreneurs are over, but whether you are talking about the bakery down the street or Sony or General Motors, some one person or group of people must still coordinate and manage resources to produce saleable products and services.

Asking Questions, Making Choices

Thus, labor, land, capital, and management are the four major resources available to produce the goods and services that people need and want in our economy. To define a working economic system, however, we must ask further questions; for example, *how does an economic system determine what is to be produced?* What will our economic output consist of, and who will determine its composition? Will our economy produce bombs and tanks, or hospitals and homes? Small cars, large cars, or bikes and trains? Gas, oil, or solar heat? Who or what will decide for us? Of course, different economic systems will provide different answers to these questions. Leaders in Cuba or China determine what is to be produced in a somewhat different manner than they do in the United States or Brazil.

In addition, there are other important questions to ask, such as *how does the economic system decide who gets the*

output? Why are incomes, goods, and services distributed in the ways they are? Throughout world history, dividing up the economic pie has often been a very controversial question. Will our economic system give a majority of the output to a few "super rich" families, will it try to divide the pie up more equally, or will the economic distribution fall somewhere in between? The uneven distribution of incomes and wealth often results from differences in education, intelligence, skills, work habits, monopoly power, geography, family background, luck, and political or social savvy. More equal incomes, on the other hand, are usually regulated by government policies, such as minimum-wage laws, progressive taxation, subsidized education, and welfare assistance.

And finally, there is the question *how will these goods be produced?* At first glance, the answer might seem to be a purely technical one. Building an automobile, for example, is a problem for the engineer. And yet we know there are really many ways to produce a finished automobile. Ideally, we want to build efficiently, using abundant, low-cost resources in place of scarce, high-cost resources. Assembling that car one way in preference to another returns us to the question of *allocating* resources. Choosing the correct production techniques (conserving the scarce resources and using the abundant ones) is as much an economic problem as it is a technical or engineering problem. Economics is therefore the science (or art) of making choices—of choosing the best way to organize our limited resources to meet our material needs.

Finding Answers

The method by which an economic system answers these questions varies from time to time and from country to country. In fact, there are three basic systems for organizing economic resources.

The first is called *tradition.* The decision makers in a **traditional economic system** answer these questions by saying, "We will organize our economy in the way we have always organized it," by following age-old patterns determined by a complex culture that has evolved over thousands of years. Tools and houses are constructed as they were always constructed. Junior goes into the same trade as dad, while the daughter's life will be very much like her mother's. Output is allocated by custom, with few changes over the years and only minute trial-and-error improvements over the centuries; it's a system that is predictable, predetermined, and relatively static.

Economics by tradition certainly has some advantages: there may be less conflict, and there are probably few expectations that cannot be met. But as an economic system, it is likely to offer a relatively low standard of living, at least as we in the industrialized world would define it. If you feel that having more choices moves you closer to the "good life," then the traditional economic system is probably not for you.

Yet we certainly have elements of tradition in our so-called "modern economy." For example, my own father is an economist, and he was once a teacher, as I am now. Many instructors still use a lecture method that dates back to Plato in ancient Greece, even though some critics think that the lecture technique should have been discarded with the invention of the computer. Whether the critics are correct or not, contemporary education certainly adheres to very traditional methods of conduct and even ritual. Women, too, have become more aware of the extent to which their lives are determined by social and economic traditions. Discrimination on the basis of sex has eliminated a large proportion of our population from the competition for highly productive and professional jobs, and our economy has lost a potentially vast economic force. You can probably think of many more examples of how tradition weaves in and out of our supposedly "modern" economy.

The second method of organizing economic resources is the **command system,** which is characterized by the allocation of resources, incomes, prices, and so on, by a centralized authority (in other words, a dictatorship). The command system invites no questions: either you follow orders, or you take the consequences. This system is often the offspring of a despotic political system; they frequently go hand-in-hand. The economy of Cuba is a good example, as was that of ancient Egypt under the Pharaohs.

European democratic socialists believe, however, that we can have a planned, state-directed economy without dictatorship. The combination appears to be difficult, yet democratic state planning has been approximated in Scandinavia and Japan. The U.S. economy, too, has some elements of economic command. Our military services, for example, work on this

principle, as does the government allocation of goods during wartime. When price-wage controls are in effect, we have a perfect example of government command. Furthermore, almost all government laws on economic affairs (including our tax system) constitute direction from above. By and large, however, our private enterprise system cannot really be called either a command or a traditional system.

What we have in the United States is the third mode of economic organization: a *market economy.* A relatively recent phenomenon, the **market system** motivates people by offering economic incentives and rewards within a process of exchange. Instead of government direction, decisions on resource use are made by millions of independent individuals and institutions striving to do what is best for themselves or their businesses. Here, the economic mule moves by carrot instead of stick. A market economy is indeed a system of carrots.

If the command system is centralized, the market system is decentralized. A market economy churns out prices in countless markets of supply and demand; these prices, in turn, *act as guidelines* in a new round of economic decisions. It is a competitive, interdependent, self-regulating system.

From a recent historical perspective, the market system appears to be "the economy of choice" in terms of its capacity to bring about modernization, to broaden economic opportunity, and to improve a nation's standard of living. In eastern Europe, for example, such countries as Poland, Czechoslovakia, Hungary, and East Germany are rejecting political dictatorship and command economics and are apparently moving toward democracy and a production/distribution system more in tune with a decentralized market economy. Thus, many of the large-scale, twentieth-century experiments with command economics are currently being phased out or abandoned outright.

Economic Sacrifices

Another way of looking at economics is to examine sacrifices—what economists call **opportunity costs.** What does this mean?

Let's say that you have spent half an hour reading this chapter. By spending this time reading, you have given up doing a number of activities you could have enjoyed. When you use up one of your resources (an hour of time, a dollar, etc.), the cost to you is really the opportunities that you have forfeited. That hour is gone forever, and so are the alternative activities you might have enjoyed. Sometimes we hear the question, "If you had your life to live over, would you do it any differently?" If you answer yes, then you are referring indirectly to your opportunity cost.

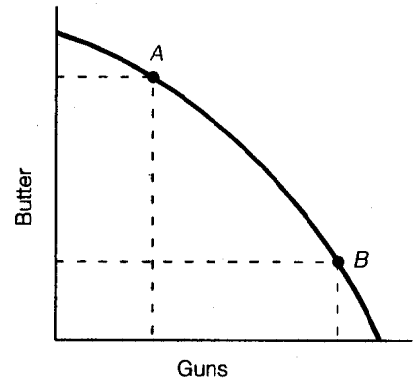

FIGURE 1-1 A society must make choices! This *production-possibilities curve* represents the various choices that society can make about military versus consumer spending. Possible combinations along the curve include a lot of butter (consumer goods) and few guns (military goods) at point *A* or a small amount of butter and a large amount of guns at point *B*.

Although this explanation of opportunity cost is somewhat philosophical, the economic concept is often more concrete. Economists look at the sacrifices that must be made when the economic resources of land, labor, capital, and management are used. If, for example, we commit our resources to producing 10 million automobiles, then these resources *cannot* be used for such alternative goods and services as housing or mass transit. Thus, the economist (unlike the businessperson) is interested not only in monetary costs but also in what is going to be sacrificed when resources are put to use.

The idea of looking at economic costs as sacrifices can be seen quite dramatically if we look at Figure 1-1. We can assume that point *A* represents an economy much like our own; it has directed most of its total resources toward the production of "butter" (private consumer goods) and fewer resources toward "guns" (military expenditures). As we move away from zero on either the "guns" or "butter" axis of this graph, we are producing more and more of that good. Thus, point *B* represents a country that has chosen to produce more military goods than consumer goods (as the United States did during World War II).

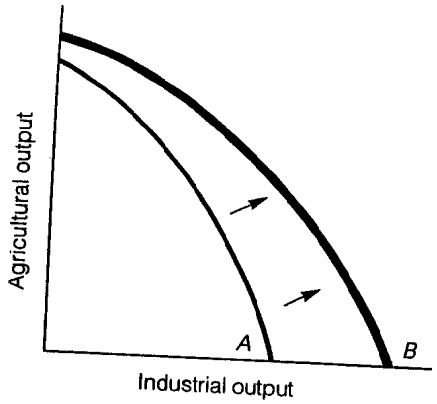

FIGURE 1-2 *Economic growth* is reflected by an expanding production-possibilities curve (from an early developmental stage, represented by curve *A*, to a stage of increased production, represented by curve *B*). Here, China's economic growth favors industrial output over agricultural output.

Given the fact that a country has only so many total resources, it is forced to choose some mix on the line (or curve) between guns and butter. This line or curve is called the **production-possibilities curve.**

Our production-possibilities curve therefore represents all the various choices open to society regarding consumer versus military production. With our limited resources, we may opt to produce more butter (*A*) *or* guns (*B*), but note that we cannot have large amounts of both goods—there are simply not enough total resources! In fact, to move from point *A* to point *B* means that the production of butter *must be sacrificed* to get more guns. Stating this opportunity cost a little differently, economists sometimes say, "There is no such thing as a free lunch."

The *true cost* (opportunity cost) is the measure of what is sacrificed. Thus, we might view the true economic cost of a large defense buildup as all the desirable things that *might* have been produced or accomplished if the resources had been applied to the production of peace-time goods and services. Or, the true economic cost of having so many automobiles is that the resources used to manufacture them are not available to produce mass-transit systems (see Figure 1-3).

Now let's take a look at another production-possibilities curve. The one in Figure 1-2 represents a less-developed country like China.

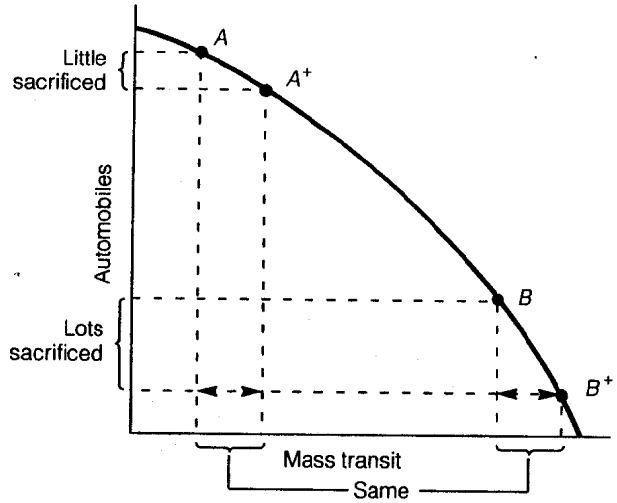

FIGURE 1-3 *Law of increasing costs:* note the *small* sacrifice *(opportunity cost)* of automobiles when mass transit increases from *A* to *A*+, compared to the *large* sacrifice of automobiles that results when mass transit increases from *B* to *B*+. The amount of increase in mass transit is the same in both cases.

Curve *A* represents the country at an early stage of development, when it has more agricultural potential than industrial potential. The expanding production curve *B* represents this country after some economic growth has occurred. The country in this example has chosen the kind of economic growth that tends to favor industrial output over agricultural output. This is a typical pattern for economic development throughout the world.

The Law of Increasing Costs

Finally, there is an additional piece of information we can gather by examining a production-possibilities curve. Take a look at Figure 1-3.

Assume for a moment that the United States is producing a lot of automobiles and few mass-transit systems; the country is therefore operating at point *A*. Now suppose that the United States decides to put more of its resources into mass transit, so that production moves down the curve a little way from *A* to *A*+. Note how much additional mass transit there is in relation to the relatively *small* amount of sacrificed automobiles. If, however, the United States is producing a lot of mass-transit sys-

tems (operating at point B) and wants even more mass transit, the country gains the *same* amount as before (A to A^+) when it moves from B to B^+. Note the difference in the real cost of obtaining that extra mass transit: the number of sacrificed automobiles *is much larger*. We might say, then, that as the United States moves to higher levels of mass transit, the opportunity costs of squeezing out yet *more* mass transit becomes greater and greater as more and more automobiles have to be sacrificed. Obviously, when a country is producing almost all mass transit, it has few interchangeable resources left to switch from producing automobiles to producing even more mass transit. Thus, the sacrifice (or cost) must be very high to gain these additional trains, buses, etc. Economists call this phenomenon **the law of increasing costs.**

The Economist's Concerns

Let's return to our original question: what is economics? We might answer this question by simply saying that economics is "what economists study." Most economists, in fact, are not too concerned with such broad generalizations as "studying how to best allocate resources to meet our unlimited wants." They are more interested in the specific economic problems of society, such as unemployment, inflation, balance of payments, economic stagnation, and pollution. So we could say that economics is "the study of how our society solves economic problems."

Alternatively, we could view economics as "the study of goals"—how a society moves closer to specific economic objectives. These economic goals are more or less universal; most countries (capitalist, socialist, and communist) are striving to achieve them.

The primary economic goal that seems to be universally desired is *a decent material standard of living for all citizens,* and much economic activity is directed toward this goal. But exactly what steps or intermediate goals lead to such a "successful economy"?

The first objective is *full employment.* Nations would like to see all, or nearly all, of their available resources being used. Men and women out of work or idle machines and factories can result in great economic suffering and social instability. It is foolish for resources to go unused when the means to correct the situation

are available. How we move an economy toward full employment will be explored later in the text.

The second goal of an economic system is *price stability.* Rapid price increases—what is commonly called *inflation*—have the undesirable effect of grossly distorting income distribution. The victims include savers, lenders, and people on fixed incomes; while these groups lose, others (including borrowers and speculators) win. At its best, mild inflation is merely irritating, if it is accompanied by full employment. At its worst, however, inflation invites panic buying and can lead to the eventual collapse of a monetary system.

Conflicts arise in pursuing various economic goals, as they do in pursuing price stability and full employment. For example, when there is high unemployment, there is frequently lower inflation; however, if there is high inflation, almost everyone is working. As a society struggles to achieve one economic objective, it sometimes loses its grip on another.

The third goal of most countries is *economic growth.* Respected critics argue that the United States is presently "overdeveloped" and believe that we would benefit by not adding any more to our economic affluence. And yet most Americans, and most other people in the world, seem to desire higher and higher levels of output and consumption. They feel concerned when the total economic output fails to rise; if output drops, alarms are sounded throughout the government and business sectors of the economy. Furthermore, in the poorest two-thirds of the world, economic stagnation may mean hunger and possible starvation.

A fourth goal of most nations is the desire for a *quality environment.* Mounting evidence of the massive pollution problems that face our small planet compels economists to regard the environment as a major economic issue. But, again, potential conflicts can arise in pursuing these economic goals concurrently. For example, strong enforcement of antipollution laws may slow down economic growth and, within some industries, increase unemployment.

A fifth goal of an economic society is to move toward a *fair distribution of income.* However, the absolutely equal distribution of income is not the economic goal of a nation. Perfect equality would be unrealistic and probably undesirable because it would destroy healthy economic incentives. On the other hand, most economists would agree that a system that allows a

large number of its citizens to live in debilitating poverty while others enjoy immense wealth is certainly unfair. What then can we do about a grossly unequal system?

Generally accepted methods of moving toward a more equal distribution of income include government taxation and redistribution of income (welfare, food stamps, Medicare, etc.), as well as the enforcement of equal opportunity in education and job procurement. If the government becomes, as some have suggested, "the employer of last resort," then it will have an even greater impact in this area. Although some people disapprove of government intervention, the policies and programs just mentioned are at least some ways of breaking down the natural, social, and institutional inequalities that operate in all societies.

The sixth and final goal of most societies is *economic freedom.* Like the goal of fair income distribution, economic freedom is sometimes difficult to define precisely. To many people, economic freedom thrives in a decentralized, free-enterprise system in which workers choose occupations suited to their skills and experience. By this definition, twentieth century America may be one of the most "free" economies in the world. Yet critics might ask what meaning economic freedom has for a consumer who has no income. Indeed, what does occupational freedom mean to an unskilled person in a high-unemployment area? How realistic would our "freedom of enterprise" be if you or I were to attempt to compete with IT&T, Proctor & Gamble, or the Ford Motor Company? The *ideal* of economic freedom is therefore often diluted by income inequalities, by barriers imposed by large, concentrated industries, and by restrictive policies and regulations of government. But compare the United States with other countries, and it's clear that the U.S. economy would score quite high in meeting the objectives of economic freedom.

Take a moment now to think about these six goals in relationship to yourself. How does the nation's economic performance—in terms of freedom, price stability, employment, growth, fairness, and the environment—affect *you?* Does the national economy help or hinder your effort to create your own personal "successful economy"? You can see that whether we like it or not, we are all connected to the larger national economy.

It is now time to take a more intimate look at some of the specific characteristics and inner workings of the complex system we call the U.S. economy.