

# ***Basic Microeconomics***

Adapted from the original work  
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Boise State University

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# **1 INTRODUCTION TO MICROECONOMICS**

**A**rcheological and written records of human existence suggest that obtaining the material means to satisfy wants has been a perpetual problem. Food and shelter are requirements of human life. Other goods satisfy a range of human desires and give pleasure or utility to individuals. The study of ways that humans deal with these problems of provisioning is called “economics.”

The evolution of processes to solve the provisioning problem takes place in a social context. As a result, the economy is a subsystem and is interrelated with a variety of other social subsystems. These subsystems include (but are not limited to) economic, political, religious, social, geographic, demographic, legal, and moral systems. The psychology of individuals is also fundamental to the social system. From the time of the Greeks (e.g. Xenophon [430-355 BCE], Plato [427-347 BCE] and Aristotle [384-322 BCE]) through the Classical economists (e.g. Adam Smith [1723-1791], Thomas Malthus [1766-1834] and David Ricardo [1772-1823]), economics was treated as part of philosophy, religion and/or moral philosophy.

During the 19<sup>th</sup> century, social science emerged and separate disciplines were carved out. Economics, psychology, sociology, politics, anthropology and other branches of social science developed as separate fields of study. In the last part of the 19<sup>th</sup> century, “political economy” became “economics.” Since that time, economics has been frequently defined as “the study of how scarce resources are allocated to satisfy unlimited wants.” As a professional discipline, economics is often regarded as a decision science that seeks optimal solutions to technical allocation problems. In this text, economics is presented from two perspectives. First, the process of provisioning will be



presented. The second perspective is the technical analysis of the processes by which scarce resources are allocated for competing ends.

### ***1.1 ECONOMICS AS A STUDY OF PROVISIONING***

**P**rovisioning treats economics as a social science. Economics as a study of provisioning includes the historical and philosophical foundations and context of economic behavior. The tradeoffs between the economic and non-economic goals are considered. The interrelationships of economic life with justice, ethics, morality, creativity, security and aesthetic values are of concern. Human societies have attempted a broad array of alternative systems to deal with the problem of provisioning. Some have been more successful and other less so. Some systems have lasted for thousands of years with few changes. Other systems have come and gone quickly. In some cases environmental problems have caused the demise of societies. In other cases, the societies ended abruptly with social revolution. In other cases, the societies adapted to changing circumstances and evolved over time. Mayan, Egyptian, Roman, Incan are only a few of the societies that have come and gone. Archeological studies continually find evidence of societies that flourished and ultimately failed. In some cases they were destroyed from outside forces: the Spanish ended the Aztec and Incan societies. In other cases, the causes were environmental: there is a hypothesis a drought is responsible for a dramatic change in the Mayan society.

Economics as a study of provisioning is concerned with the relationships among individuals, between individuals and the community, and between individuals, society and natural and built environments. Natural environment refers to the geographic (cultural and physical) and meteorological phenomena. The built environment consists of the infrastructure and

knowledge that a society has inherited and created. It should be noted that humans have the capacity to alter their natural environment in both positive and negative ways.

## **1.2 ECONOMICS AS A STUDY OF THE ALLOCATION OF SCARCE RESOURCES**

**F**rom a technical perspective, economics is the study of how various alternatives or choices are evaluated to best achieve a given objective. The domain of economics is the study of processes by which scarce resources are allocated to satisfy unlimited wants. Ideally, the resources are allocated to their highest valued uses. Supply, demand, preferences, costs, benefits, production relationships and exchange are tools that are used to describe the market processes by which individuals allocate scarce resources to satisfy as many wants as possible. This increasingly narrow focus is the domain of modern, “neoclassical,” microeconomic analysis.

**This introductory chapter is intended to introduce some of the fundamental issues in the study of economics.**

## **1.3 SOCIAL SCIENCE AND ECONOMICS**

**T**here is substantial evidence and general agreement that humans live in social groups. The Western tradition, as framed by the Greeks and the Judeo/Christian tradition, holds that humans are social animals.

Plato [427-347 BCE] and Aristotle [384-322 BCE] offer explanations of the rise of the city-state. In *The Republic*, Plato sees the origins of the city-state in the quest for justice. Plato describes a conversation between Socrates and a group of students. They are pondering the nature of justice. They conclude that justice is each person doing that which they are best suited to do. The

person best suited to be a baker should be a baker: the person best suited to be a shepherd should be a shepherd. Once individuals specialize, the city-state arises to facilitate the interactions among the individuals. [*The Republic*, Book II]

In *Politics*, Plato's student, Aristotle, sees an organic composition of society. The state becomes a natural community that is treated as an organism. There is a natural progression from family to village to the city-state. The city-state is then "prior to the family and individual." [*The Politics*, Book I, Chapter 9]

While Plato and Aristotle take different approaches, both see economic behavior as an integral part of society. Plato's focus is on justice and Aristotle's is on the "good life." One of the fundamental problems that both identify is the nature of the proper relationship between the individual and society.

### **1.3.1 ROLE OF INDIVIDUAL IN THE COMMUNITY**

**I**n economics (and social sciences more generally), the nature of the role of the individual in the community or state has been a persistent question. Every society must address the question (either implicitly or explicitly), "How can the autonomy (or freedom or liberty) of an individual be maintained and at the same time provide for the commonweal (social welfare)?" In some societies, the individual is regarded as more important than the community. In other societies, the community has priority over the individual. From a practical perspective, the problem is to balance the rights and freedom of the individual with the functions of the community.

There are several perspectives about the most appropriate ways to achieve that balance. While dealing with this balance, the allocation or provisioning problem must be resolved.

### **1.3.2 COOPERATION, COMPETITION AND CONSCRIPTION**

**I**deally, each individual is free to make choices that are consistent with their desires (preferences, values) and at the same time, these choices are consistent with the commonweal. Competition, cooperation and conscription may be used to coordinate individual actions. Different societies have attempted different approaches at different times.

#### **1.3.2.1 COOPERATION AND CONSCRIPTION**

**C**ooperation implies voluntary agreements and a coordinated approach to the solution of a problem. Conscription implies a non-voluntary or forced behavioral choice in the allocation process. An economic input (labor, capital, land) or good can be conscripted. Conscription implies the ability of one person or group to force another to make choices they would not prefer. Cooperation and coercion are opposite ends of a spectrum or range of behavioral patterns. The degree to which a choice is voluntary or forced is not always clear. A group of Inuits above the Arctic Circle may use cooperation as an important element of the coordination process. "Cooperation" may be encouraged by strongly held common values or necessity. Each member of the society understands that their chance for survival is reduced if she or he is not a member of the community. A behavior that is not sanctioned by the community (e.g. theft, murder, etc) may result in the individual being ostracized and expelled from the community, the result being death. Is the acceptance of group values and activities voluntary or coerced? If a

government (a formal social institution for allocating power and decision making authority in a community) uses sanctions to force behavior or choice it is clearly coercion or conscription. If I threaten harm if you do not make a given choice or act in a specific way, that is coercion. If a person's mother says, "You go ahead but it will break my heart!" is that coercion?

Voluntary cooperation and coerced conscription lie at opposite ends of a continuum. It is a variation of the arguments about whether individuals have free will. The shift from voluntary coordinated behavior (cooperation) to coerced coordinated behavior (conscription) is a matter of degrees. In both cases, individuals have an incentive to coordinate their behavior. In the case of coercion, the incentive is the costs created and imposed by other individuals or groups of individuals. A student in high school may feel coerced by their peers, the class bully or the rules of the system. A worker may be coerced by other workers, the management of the firm or government regulations.

#### **1.3.2.2 COMPETITION**

**M**arket oriented societies focus on the use of competition to constrain individual behavior. In Western industrial societies, competition is regarded as the optimal way to coordinate economic behavior. A market exchange is a contract between a seller and a buyer. The seller competes to get the highest possible price (or best deal), while the buyer competes to buy at the lowest possible price. The competition between the buyer and seller is influenced by the tastes (or preferences) of buyer and seller, information that each has and alternatives that each has.

The word "competition" has at least two meanings in economics. One is to refer to rivalry. In rivalry, there is a winner and a loser. The other is a structural notion of "pure" competition where the sellers do not see

themselves as rivals (farmers are often thought of as being engaged in highly competitive markets but do not see themselves as rivals.)

Generally, societies use a mix of cooperation and competition. A firm is a form of cooperation. In 1937, Ronald Coase published an explanation of why business firms exist in a market economy (Coase, pp 33-55) If a competitive market economy were the optimal way of allocating resources, why would firms be desired? Coase argues that there are costs of using a market. He calls these costs "transaction cost." There are also costs of creating and operating an organization. If the transaction costs exceed the cost of organizing a cooperative endeavor, a firm will be created to avoid the use of market transactions.

### **1.3.3 THE NATURE OF AN ECONOMIC SYSTEM AND PROCESSES WITHIN A SYSTEM**

**T**he study of economics can be approached at different levels. At one level economics is the study of how the economic provisioning, or economic systems, come into being and evolve over time. At another level, economics studies the structure and ways in which a particular system deals with the allocation or provisioning problem.

The study of the structure and evolution of economic systems typically is interdisciplinary. It may use a good deal of history, psychology, sociology, law and philosophy in its analysis of the social process of provisioning. When economics is the study of a particular system, it tends to be narrower and focus is on specific processes. In the Western industrial societies, the current focus is on market oriented economic processes and is referred to as "Neoclassical" microeconomics or "price theory." Its focus is on the

competitive behavior of individuals and exchange transactions in a market context.

#### **1.3.4 SOCIAL INTERACTION AND TECHNOLOGY**

**H**umans have sought to solve the problem of provisioning through social interaction and the use of technology. Social interaction is used to refer to the relationships between two or more individuals. In this context, an “individual” has the ability to make a decision and carry that decision out. In legal terms, this individual is called an “agent.” (One of the important concepts in law and economics is the relationship between a principal and an agent. This concept will be addressed in more detail later in the text.)

An agreement between two individuals or agents is a contract. The agreement may be influenced by social institutions as well as the preferences and values of the individuals. A social institution is a habitual pattern of behavior that is embedded in a social system. Marriage is an example of a social institution. It is a contract between two people. The form of that contract is influenced by commonly held social values and laws of a society. Almost all societies have some form of marriage. Marriage is a social creation that provides a solution to the problem of rearing children. As a social institution, it may change over time as social values, technology, work and environment change. These institutions may vary from place to place.

Money, law (or the legal system), property rights and markets are examples of economic institutions. Institutions simultaneously facilitate and constrain human activities.

Technology is the knowledge about the individuals’ relationships with the natural and built environments. This knowledge can be used to alter elements

in the environments to satisfy human wants. Technology involves knowledge about alternative ways of solving the problem of provisioning.

## **1.4 THE PROBLEM OF PROVISIONING**

**S**ociety is confronted with a finite set of resources and a given state of technology at any given point in time. As a result, there is a finite amount of goods and services that can be produced in that time frame. Given human desires and need for food, clothing and shelter, it is not always possible to produce everything that every one would like to have. When individuals want more than can be produced they have the economic problem of scarcity.

The problem of scarcity might be resolved by reducing individuals wants or by increasing the output of goods and services. If the solution is to reduce wants, which wants should be eliminated and which should be retained to be satisfied? The individual would necessarily be required to make a choice. If the solution was to produce more goods, which goods should be produced and how are they to be produced? Again, the individual must make choices. In modern, neoclassical, economic analysis (we will call this “orthodox” economics), the problem is structured so the wants are taken as given and the problem is to produce the goods that satisfy the greatest wants.

Scarcity requires that the individual or agent make choices. An individual in isolation (Defoe’s Robinson Crusoe before Friday) would have to make choices since time and resources are limited. It would be necessary to choose whether time was to be spent catching fish, gathering coconuts, reading or building shelter. If the choice were to catch fish, he/she would have to choose between making a net, a fishing pole or trying to catch fish by hand. The choice to spend an hour fishing implies that that hour cannot be used to gather coconuts. The sacrifice of coconuts is called “opportunity cost.”



Even Robinson Crusoe's world of isolation did not last long. When Friday came to the island, it became necessary to decide who did what and who got what. It is necessary to coordinate the preferences and activities of Crusoe and Friday. Since the story of Robinson Crusoe was written by an Englishman, Daniel Defoe (1659-1731), Crusoe is dominant and he has a greater influence on the decisions than Friday. In 1719, the perspective of an English writer was that aboriginals of various lands were subordinate. Still, it is necessary to coordinate their activities.

### **1.4.1 SOCIAL INTERACTION**

**I**n a society, the behavior of the individuals must be coordinated through social interaction. This social interaction takes many forms ranging from cooperation to competition. In the process of resolving the allocation problem through social interaction, a set of institutions, organizations, beliefs, principles, perspectives and commonly held values are created. Society, guided by these values, perceptions and beliefs and constrained by institutions, technology and resource endowment, must solve the problem of provisioning. The specific uses of goods and resources must be determined. These choices involve which resources to use, which goods to produce, who will bear the costs and who will benefit.

The basic problem is the coordination of the choices and behavior of individuals. Finding a way to protect the autonomy of the individual while coordinating their behavior to provide for the commonweal has been an important goal of most great writers on social topics.

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