Models

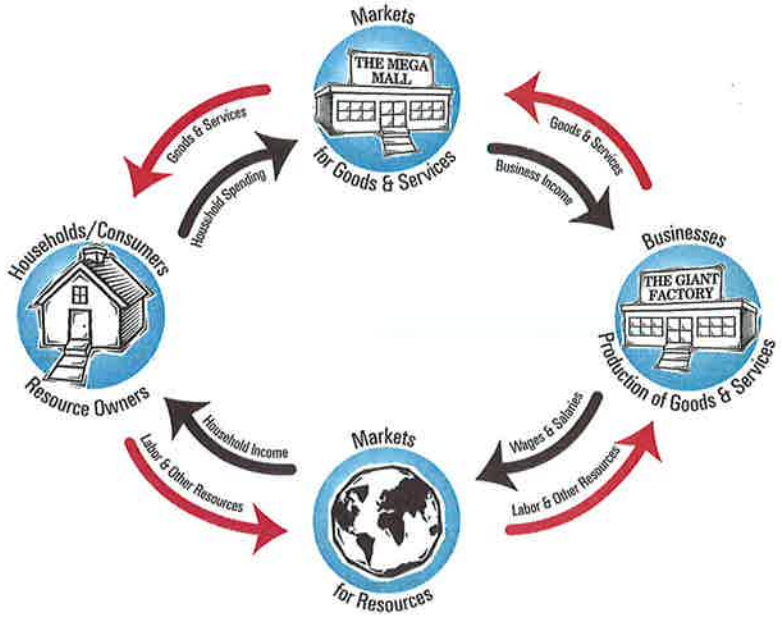
Like other social scientists, economists use models. Models represent the real world. Models simplify our complex world and help us understand it. You are already familiar with models. A model airplane shows the basic features of a plane, but it certainly is not the plane itself. A child's doll is a model that shows parts of the human body, but it is not a real body. A map is a model that can help us get from one place to another. A map only represents a land area; it is not the land area itself.

A model can be made to scale, like an airplane, which means the model's size is some fraction of the size of the object that it represents. A model can be a drawing or a diagram, which show how something works. A model can be a flow chart, which shows a sequence of events. A model is sometimes a series of numbers or equations, which quantify real world things and show them in number form. A line graph is a model that shows relationships between two sets of numbers that represent real world phenomena.

Three kinds of models are common in economics—descriptive models, predictive models, and ideal models. The Want-Satisfaction Chain in Chapter 1 is a descriptive model, with a flow chart that shows how wants are satisfied through the processes of production, distribution, and consumption. In this chapter another descriptive model is discussed. This model is a diagram.

Figure 2-1: THE CIRCULAR FLOW OF MONEY, RESOURCES, AND PRODUCTS

The descriptive model, The Circular Flow of Money, Resources, and Products, shown below in Figure 2-1, is a simple diagram. It represents economic activity that happens, and that you can see, every day. The diagram shows in simple picture form how individuals in households and businesses exchange money, resources, and products in markets. Look carefully at the model. The outside part of the model, with arrows pointing in a counterclockwise direction, shows the flow of resources and goods and services in a circular fashion. The inside part of the model, with arrows pointing in a clockwise direction, shows the flow of money in the economy, also in a circular fashion.



Check Your Understanding

How does the model to the left help you understand the concept of circular flow?

_____

_____

What do the counter-clockwise arrows show?

_____

_____

What do the clockwise arrows show?

_____

_____

Think Critically

What would happen in our economy if everyone decided to save 50 percent of his or her income?

_____

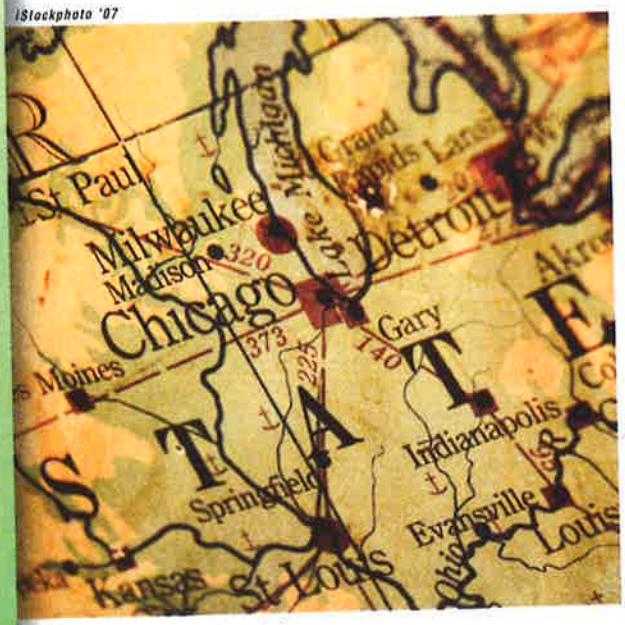
_____

_____

Households is the word economists use to describe people living in the United States, regardless of the type of house or apartment they may live in. Households play two important roles in the economy. Members of households are consumers because they buy and use the goods and services that businesses produce. Households are also resource owners. The most obvious resource they own is their labor. They also own other productive resources, such as land and capital.

As consumers, members of households participate in goods and services markets when they buy food, shoes, watches, and countless other products. But where do household members get the money to buy the products they want? They exchange their labor (or other resources) in resource markets for income to spend in the goods and services markets.

Combining the different elements of the economy into the model shows how production and exchange are tightly linked in a free enterprise economy. Households provide labor and other resources to businesses and buy the goods and services businesses produce. Businesses produce goods and services for households and pay the wages and salaries households use to buy goods and services. The Circular Flow is an illustration of how people in the economy depend on one another.



A map is a type of model.

The Circular Flow as a Descriptive Model

The Circular Flow is a descriptive model. Like a simple map, the model uses a few basic images to represent the entire economy. The model leaves out many important details. Just as you would leave out many streets and other features of your neighborhood when drawing a simple map to your home, this model does not include all the goods and services that businesses produce. The model does not show that consumers earn money by selling capital resources and natural resources as well as their labor. Also missing are consumer savings and business investments in new equipment and other capital goods.

Show Your Understanding

Underline all the ways in which the government enters the circular flow.

Government is an important part of our economy, too. Many people, like public school teachers, work for government agencies, and the government provides many services to its citizens. Further, households pay taxes to the government, and government pays wages and salaries to its employees. Similar flows of money and economic resources move between government and businesses. Goods and services–everything from tanks to paper clips to medical care–flow from businesses to government. Businesses use services such as highways, airports, police protection, and scientific research provided by government. Government pays for purchases from businesses, and businesses pay taxes to government. How the government enters the circular flow is described in detail in Chapter 12.

Adding other important elements, such as government, would make the model more realistic—and more difficult to follow. However, if you understand the diagram in this chapter, you can add other elements later to make it more complete.

How Well Do You Understand Models?

Read the following statements and decide whether each is true (T) or false (F).

1. The Want-Satisfaction Chain in Chapter 1 is a model showing how human wants are satisfied. _____
2. The Circular Flow Diagram is a model of a free enterprise economy. _____
3. Both models described in Questions 1 and 2 are predictive models. _____
4. Both models described in Questions 1 and 2 provide the reader with a complete, comprehensive, detailed description of economic behavior. _____

Making the Flow Grow

Increased production, employment, and income are signs of economic growth. Not only does the circular flow move faster when our economy grows, but the kinds of goods and services flowing around it change, too. Flat-screen TVs, microwave ovens, home computers, DVDs—these and many other products we often take for granted today—were not available a few years ago. Products go away, often because people no longer want them. Record players and manual typewriters are two examples.

Even the demand for resources changes over time. People used to think sand was a nuisance and that it had no practical use as a resource. Today the silicon in sand is made into integrated circuits, solar cells, and transistors. Sand now has become a valuable resource. Even the way people make payments has changed. Online banking and "e-billing" are becoming more and more popular. Some experts predict that actual money, in the form of coins and paper bills, will become obsolete in the not too distant future.

The Circular Flow model helps us understand the flow of resources into businesses. Businesses produce a flow of goods and services. Households use their incomes from the sale of their resources to purchase goods and services. Incomes and consumer purchases represent the flow of money in the economy. Now we will examine money in the Circular Flow more carefully.

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Money in the form of coins and paper bills may someday be replaced by online banking and e-billing.

Think Critically

Do you think a world without coins or paper bills would make our lives easier or more difficult?

_____

Why? _____

_____