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Chapter 1

What Is Economics?

Fast-Food Economics

You are just beginning your study of economics, but let us fast-forward to the end of your first economics course. How will your study of economics affect the way you see the world?

The final exam is over. You are sitting at a restaurant table, waiting for your friends to arrive. The place is busy and loud as usual. Looking around, you see small groups of people sitting and talking animatedly. Most of the customers are young; this is not somewhere your parents visit very often. At the counter, people line up to buy food. You watch a woman choose some items from the menu and hand some notes and coins to the young man behind the counter. He is about the same age as you, and you think that he is probably from China. After a few moments, he hands her some items, and she takes them to a table next to yours.

Where are you? Based on this description, you could be almost anywhere in the world. This particular fast-food restaurant is a Kentucky Fried Chicken, or KFC, but it could easily have been a McDonald's, a Burger King, or any number of other fast-food chains. Restaurants like this can be found in Auckland, Buenos Aires, Cairo, Denver, Edinburgh, Frankfurt, Guangzhou, and nearly every other city in the world. Here, however, the menu is written in French, and the customer paid in euros (€). Welcome to Paris.

While you are waiting, you look around you and realize that you are not looking at the world in the same way that you previously did. The final exam you just completed was for an economics course, and—for good or for ill—it has changed the way you understand the world. Economics, you now understand, is all around you, all the time.

1.1 Microeconomics in a Fast-Food Restaurant

LEARNING OBJECTIVE

1. What kinds of problems do we study in microeconomics?

You watch another customer go to the counter and place an order. She purchases some fried chicken, an order of fries, and a Coca-Cola. The cost is €10. She hands over a bill and gets the food in exchange. It's a simple transaction; you have witnessed exchanges like it thousands of times before. Now, though, you think about the fact that this exchange has made both the customer and the store better off than they were previously. The customer has voluntarily given up money to get food. Presumably, she would do this only if having the food makes her happier than having the €10. KFC, meanwhile, voluntarily gave up the food to get the €10. Presumably, the managers of the store would sell the food only if they benefit from the deal as well. They are willing to give up something of value (their food) in exchange for something else of value (the customer's money).

Think for a moment about all the transactions that *could* have taken place but did not. For the same €10, the customer could have bought two orders of fried chicken. But she didn't. So even though you have never met the person, you know something about her. You know that—at this moment at least—she prefers having a Coca-Cola, fries, and one order of fried chicken to having two orders of fried chicken. You also know that she prefers having that food to any number of other things she could have bought with those euros, such as a movie theater ticket, some chocolate bars, or a book.

From your study of economics, you know that her decision reflects two different factors. The first is her tastes. Each customer likes different items on the menu. Some love the spicy fried chicken; others dislike it. There is no accounting for differences in tastes. The second is what she can afford. She has a budget in mind that limits how much she is willing to spend on fast food on a given day. Her decision about what to buy comes from the interaction between her tastes and her budget. Economists have built a rich and complicated theory of decision making from this basic idea.

You look back at the counter and to the kitchen area behind it. The kitchen, you now know, is an example of a *production process* that takes inputs and produces output. Some of the inputs are perhaps obvious, such as basic ingredients like raw

chicken and cooking oil. Before you took the economics course, you might have thought only about those ingredients. Now you know that there are many more inputs to the production process, including the following:

- The building housing the restaurant
- The tables and chairs inside the room
- The people working behind the cash register and in the kitchen
- The people working at KFC headquarters managing the outlets in Paris
- The stoves, ovens, and other equipment in the kitchen used to cook the food
- The energy used to run the stoves, the ovens, the lighting, and the heat
- The recipes used to convert the ingredients into a finished product

The outputs of KFC are all the items listed on the menu. And, you realize, the restaurant provides not only the food but also an additional service, which is a place where you can eat the food. Transforming these inputs (for example, tables, chickens, people, recipes) into outputs is not easy. Let us examine one output—for example, an order of fried chicken. The production process starts with the purchase of some uncooked chicken. A cook then adds some spices to the chicken and places it in a vat of very hot oil in the huge pots in the kitchen. Once the chicken is cooked, it is placed in a box for you and served to you at the counter. That production process uses, to a greater or lesser degree, almost all the inputs of KFC. The person responsible for overseeing this transformation is the manager. Of course, she doesn't have to analyze how to do this herself; the head office provides a detailed organizational plan to help her.

KFC management decides not only what to produce and how to produce it but also how much to charge for each item. Before you took your economics course, you probably gave very little thought to where those prices on the menu came from. You look at the price again: €5 for an order of fried chicken. Just as you were able to learn some things about the customer from observing her decision, you realize that you can also learn something about KFC. You know that KFC wouldn't sell an order of fried chicken at that price unless it was able to make a profit by doing so. For example, if a piece of raw chicken cost €6, then KFC would obviously make a loss. So the price charged must be greater than the cost of producing the fried chicken.

KFC can't set the price too low, or it would lose money. It also can't set the price too high. What would happen if KFC tried to charge, say, €100 for an order of chicken? Common sense tells you that no one would buy it at that price. Now you understand that the challenge of pricing is to find a balance: KFC needs to set the price high

enough to earn a good profit on each order sold but not so high that it drives away too many customers. In general, there is a trade-off: as the price increases, each piece sold brings in more revenue, but fewer pieces are sold. Managers need to understand this trade-off between price and quantity, which economists call *demand*. It depends on many things, most of which are beyond the manager's control. These include the income of potential customers, the prices charged in alternative restaurants nearby, the number of people who think that going to KFC is a cool thing to do, and so on.

The simple transaction between the customer and the restaurant was therefore the outcome of many economic choices. You can see other examples of economics as you look around you—for example, you might know that the workers earn relatively low wages; indeed, they may very well be earning minimum wage. Across the street, however, you see a very different kind of establishment: a fancy restaurant. The chef there is also preparing food for customers, but he undoubtedly earns a much higher wage than KFC cooks.

Before studying economics, you would have found it hard to explain why two cooks should earn such different amounts. Now you notice that most of the workers at KFC are young—possibly students trying to earn a few euros a month to help support them through college. They do not have years of experience, and they have not spent years studying the art of cooking. The chef across the street, however, has chosen to invest years of his life training and acquiring specialized skills and, as a result, earns a much higher wage.

The well-heeled customers leaving that restaurant are likewise much richer than those around you at KFC. You could probably eat for a week at KFC for the price of one meal at that restaurant. Again, you used to be puzzled about why there are such disparities of income and wealth in society—why some people can afford to pay €200 for one meal while others can barely afford the prices at KFC. Your study of economics has revealed that there are many causes: some people are rich because, like the skilled chef, they have abilities, education, and experience that allow them to command high wages. Others are rich because of luck, such as those born of wealthy parents.

Everything we have discussed in this section—the production process, pricing decisions, purchase decisions, and the employment and career choices of firms and workers—are examples of what we study in the part of economics called **microeconomics**[1]. Microeconomics is about the behavior of individuals and firms. It is also about how these individuals and firms interact with each other through markets, as they do when KFC hires a worker or when a customer buys a piece of

1. The study of the choices made by individuals and firms, as well as how individuals and firms interact with each other through markets and other mechanisms.

fried chicken. When you sit in a fast-food restaurant and look around you, you can see microeconomic decisions everywhere.

KEY TAKEAWAY

- In microeconomics, we study the decisions of individual entities, such as households and firms. We also study how households and firms interact with each other.

CHECKING YOUR UNDERSTANDING

1. List three microeconomic decisions you have made today.

1.2 Macroeconomics in a Fast-Food Restaurant

LEARNING OBJECTIVE

1. What kinds of problems do we study in macroeconomics?

The economic decisions you witness inside Kentucky Fried Chicken (KFC) are only a few examples of the vast number of economic transactions that take place daily across the globe. People buy and sell goods and services. Firms hire and lay off workers. Governments collect taxes and spend the revenues that they receive. Banks accept deposits and make loans. When we think about the overall impact of all these choices, we move into the realm of macroeconomics. **Macroeconomics**[2] is the study of the economy as a whole.

While sitting in KFC, you can also see macroeconomic forces at work. Inside the restaurant, some young men are sitting around talking and looking at the newspaper. It is early afternoon on a weekday, yet these individuals are not working. Like many other workers in France and around the world, they recently lost their jobs. Across the street, there are other signs that the economy is not healthy: some storefronts are boarded up because many businesses have recently been forced to close down.

You know from your economics class that the unemployed workers and closed-down businesses are the visible signs of the global downturn, or *recession*, that began around the middle of 2008. In a recession, several things typically happen. One is that the total production of goods and services in a country decreases. In many countries, the total value of all the goods and services produced was lower in 2008 than it was in 2007. A second typical feature of a recession is that some people lose their jobs, and those who don't have jobs find it more difficult to find new employment. And a third feature of most recessions is that those who do still have jobs are unlikely to see big increases in their wages or salaries. These recessionary features are interconnected. Because people have lower income and perhaps because they are nervous about the future, they tend to spend less. And because firms are finding it harder to sell their products, they are less likely to invest in building new factories. And when fewer factories are being built, there are fewer jobs available both for those who build factories and for those who work in them.

Down the street from KFC, a large construction project is visible. An old road and a nearby bridge are in the process of being replaced. The French government

2. The study of the economy as a whole.

finances projects such as these as a way to provide more jobs and help the economy recover from the recession. The government has to finance this spending somehow. One way that governments obtain income is by taxing people. KFC customers who have jobs pay taxes on their income. KFC pays taxes on its profits. And customers pay taxes when they buy their food.

Unfortunately for the government, higher taxes mean that people and firms have less income to spend. But to help the economy out of a recession, the government would prefer people to spend more. Indeed, another response to a recession is to *reduce* taxes. In the face of the recession, the Obama administration in the United States passed a stimulus bill that both increased government spending *and* reduced taxes. Before you studied macroeconomics, this would have seemed quite mysterious. If the government is taking in less tax income, how is it able to increase spending at the same time? The answer, you now know, is that the government borrows the money. For example, to pay for the $787 billion stimulus bill, the US government issued new debt. People and institutions (such as banks), both inside and outside the United States, buy this debt—that is, they lend to the government.

There is another institution—called the monetary authority—that purchases government debt. It has specific names in different countries: in the United States, it is called the Federal Reserve Bank; in Europe, it is called the European Central Bank; in Australia, it is called the Reserve Bank of Australia; and so on. When the US government issues more debt, the Federal Reserve Bank purchases some of it. The Federal Reserve Bank has the legal authority to create new money (in effect, to print new currency) and then to use that to buy government debt. When it does so, the currency starts circulating in the economy. Similarly, decisions by the European Central Bank lead to the circulation of the euro notes and coins you saw being used to purchase fried chicken.

The decisions of the monetary authority have a big impact on the economy as well. When the European Central Bank decides to put more euros into circulation, this has the effect of reducing interest rates, which means it becomes cheaper for individuals to get a student loan or a mortgage, and it is cheaper for firms to buy new machinery and build new factories. Typically, another consequence is that the euro will become less valuable relative to other currencies, such as the US dollar. If you are planning a trip to the United States now that your class is finished, you had better hope that the European Central Bank doesn't increase the number of euros in circulation. If it does, it will be more expensive for you to buy US dollars.

Today, the world's economies are highly interconnected. People travel from country to country. Goods are shipped around the world. If you were to look at the labels on the clothing worn by the customers in KFC, you would probably find that

some of the clothes were manufactured in China, perhaps some in Malaysia, some in France, some in the United States, some in Guatemala, and so on. Information also moves around the world. The customer sitting in the corner using a laptop might be in the process of transferring money from a Canadian bank account to a Hong Kong account; the person at a neighboring table using a mobile phone might be downloading an app from a web server in Illinois. This globalization brings many benefits, but it means that recessions can be global as well.

Your study of economics has taught you one more thing: the idea that you can take a trip to the United States would have seemed remarkable half a century ago. Despite the recent recession, the world is a much richer place than it was 25, or 50, or 100 years ago. Almost everyone in KFC has a mobile phone, and some people are using laptops. Had you visited a similar fast-food restaurant 25 years ago, you would not have seen people carrying computers and phones. A century ago, there was, of course, no such thing as KFC; automobiles were still a novelty; and if you cut your finger on the sharp metal edge of a table, you ran a real risk of dying from blood poisoning. Understanding why world economies have grown so spectacularly—and why not all countries have shared equally in this growth—is one of the big challenges of macroeconomics.

KEY TAKEAWAY

- In macroeconomics, we study the economy as a whole to understand why economies grow and why they sometimes experience recessions. We also study the effects of different kinds of government policy on the overall economy.

CHECKING YOUR UNDERSTANDING

1. If the government and the monetary authority think that the economy is growing too fast, what could they do to slow down the economy?

1.3 What Is Economics, Really?

LEARNING OBJECTIVE

1. What methods do economists use to study the world?

Economists take their inspiration from exactly the kinds of observations that we have discussed. Economists look at the world around them—from the transactions in fast-food restaurants to the policies of central banks—and try to understand how the economic world works. This means that economics is driven in large part by data. In microeconomics, we look at data on the choices made by firms and households. In macroeconomics, we have access to a lot of data gathered by governments and international agencies. Economists seek to describe and understand these data.

But economics is more than just description. Economists also build models to explain these data and make predictions about the future. The idea of a model is to capture the most important aspects of the behavior of firms (like KFC) and individuals (like you). Models are abstractions; they are not rich enough to capture all dimensions of what people do. Yet a good model, for all its simplicity, is still capable of explaining economic data.

And what do we do with this understanding? Much of economics is about policy evaluation. Suppose your national government has a proposal to undertake a certain policy—for example, to cut taxes, build a road, or increase the minimum wage. Economics gives us the tools to assess the likely effects of such actions and thus to help policymakers design good public policies.

This is not really what you thought economics was going to be about when you walked into your first class. Back then, you didn't know much about what economics was. You had a vague thought that maybe your economics class would teach you how to make money. Now you know that this is not really the point of economics. You don't have any more ideas about how to get rich than you did when you started the class. But your class has taught you something about how to make better decisions and has given you a better understanding of the world that you live in. You have started to think like an economist.

KEY TAKEAWAY

- Economists gather data about the world and then build models to explain those data and make predictions.

CHECKING YOUR UNDERSTANDING

1. Suppose you were building a model of pricing at KFC. Which of the following factors would you want to make sure to include in your model? Which factors do you think would be irrelevant?

    a. the age of the manager making the pricing decisions
    b. the price of chicken
    c. the number of customers who come to the store on a typical day
    d. the price of apples
    e. the kinds of restaurants nearby

1.4 End-of-Chapter Material

In Conclusion

Economics is all around us. We all make dozens of economic decisions every day—some big, some small. Your decisions—and those of others—shape the world we live in. In this book, we will help you develop an understanding of economics by looking at examples of economics in the everyday world. Our belief is that the best way to study economics is to understand how economists think about such examples.

With this in mind, we have organized our book rather differently from most economics textbooks. It is built not around the theoretical concepts of economics but around different applications—economic illustrations as you encounter them in your own life or see them in the world around you. As you read this book, we will show you how economists analyze these illustrations, introducing you to the tools of economics as we proceed. After you have read the whole book, you will have been introduced to all the fundamental tools of economics, and you will also have seen them in action. Most of the tools are used in several different applications, thus allowing you to practice using them and gain a deeper understanding of how they work.

You can see this organization at work in our table of contents. In fact, there are two versions of the table of contents so that both students and instructors can easily see how the book is organized. The student table of contents focuses on the applications and the questions that we address in each chapter. The instructor table of contents lists the theoretical concepts introduced in each chapter so that instructors can easily see how economic theory is developed and used in the book.

We have also gathered all the tools of economics into a toolkit. You will see many links to this toolkit as you read the book. You can refer to the toolkit as needed when you want to be reminded of how a tool works, and you can also use it as a study aid when preparing for exams and quizzes.

EXERCISES

1. A map is a model constructed by geographers and cartographers. Like an economic model, it is a simplified representation of reality. Suppose you have a map of your hometown in front of you. Think of one question about your town that you could answer using the map. Think of another question about your town for which the map would be useless.

2. Which of the following questions do you think would be studied by a macroeconomist and which by a microeconomist? (Note: we don't expect you to be able to answer all these questions yet.)

    a. What should the European Central Bank do about increasing prices in Europe?
    b. What happens to the price of ice cream in the summer?
    c. Should you take out a student loan to pay for college?
    d. What happens when the US government cuts taxes and pays for these tax cuts by borrowing money?
    e. What would happen to the prices of computers if Apple and Microsoft merged into a single firm?

Economics Detective

1. Look at a newspaper on the Internet. Find a news story about macroeconomics. How do you know that it is about macroeconomics? Find a news story about microeconomics. How do you know that it is about microeconomics?