

# About Lessons in Economics

## THE BASICS OF ECONOMICS

An economy is all the ways that people make things to sell, sell goods and services, and buy goods and services.

- Goods are objects, including materials and commodities, that can be bought or sold. Most of those items are physical in nature, which means they can be touched, but there is also a growing subset of digital goods, such as music, video games, and videos. Digital goods can't be touched, but they can be experienced by other senses, such as sight and hearing.
- Services are tasks that are performed for another person, such as mowing someone's lawn or cutting someone's hair. Teaching is a service, as is driving a bus.
- Some businesses provide both goods and services. For example, a restaurant chef provides a service when they cook a meal. The meal itself is a good.

Nearly everyone who lives in a place participates in its economy as a producer, a consumer, or both. A producer is someone who makes a good or provides a service. A consumer is someone who buys and uses the good or service. These two groups are not mutually exclusive. For example, a baker is a producer when they make pastries to sell at local shops and a consumer when they purchase the ingredients to make the pastries. And, of course, the baker often acts as a consumer when not working.

Bringing a good or service to the final consumer can take the work of many producers. This is known as a *supply chain* and includes producers of both goods and services at all the different stages of production: harvesting and processing raw materials, shipping, warehousing and distributing, manufacturing and assembling, marketing and selling, and so on.

## Resources

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A resource is something that is used to make something else or to provide a service. There are three types of resources: natural resources, human resources, and capital resources.

- Natural resources come from the earth or the surrounding atmosphere. They include things like water, wind, sun, minerals, rock, soil, and wood. Some natural resources, such as wind, wood, and sun, are renewable, which means they can be replenished naturally. Others, such as oil and natural gas, are nonrenewable; they can be used up.

While some natural resources are not threatened by climate change, the planet's ecosystems are, as are the plants and animals that inhabit them. Arable land is becoming an endangered natural resource as places on Earth that were once known for farming are becoming too hot and dry. Melting ice caps, which are also a natural resource, are contributing to rising sea levels that also threaten Earth's arable land as well as its coastal areas.

- Human resources are people who use their time and skills to make a good or provide a service. Anyone who can work is a human resource.
- Capital resources are human-made items needed to make or provide a good or service. This includes machinery, tools, buildings, and money.

## Making Choices

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Economists say that wants and needs are infinite and resources are finite; thus, scarcity—the lack of enough for everyone—is the human condition. Therefore, humans need to make choices about how they use their limited resources, including their time. The options or alternatives we choose among present trade-offs: a parent can buy their child a book or a toy; the army can buy weapons or food for the troops; the state can pay for bridge repairs or police salaries. In any choice situation, the opportunity cost is the value of the option not chosen; it is what a person gives up by choosing to purchase or do something else. So if a parent buys their child a book instead of a toy, the opportunity cost is the toy.

Scarcity affects consumers' choices in another way. If a good is scarce, it is rare—there isn't much of it. In general, the rarer or scarcer something is, the more people value it. This enables producers to charge higher prices for things that become scarce. For this reason, scarcity can change a consumer's opportunity costs.

## The Marketplace

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Producers and consumers do their business in the marketplace, which is where goods and services are bought and sold. Marketplaces can be physical, such as a shopping mall or a grocery store, or digital, such as an online store.

## Supply and Demand

Prices within the marketplace are determined largely by the so-called laws of supply and demand. Supply is how much of a good or service producers are willing and able to offer for sale at any given price. Demand is how much of a good or service consumers are willing and able to buy at any given price. The law of demand states that, other things being equal, as the price of a good increases, the quantity demanded will decrease, and conversely, as the price of a good decreases, the quantity demanded will increase. This reflects the idea that consumers prefer to pay lower prices. Similarly, the law of supply states that, other things being equal, as the price of a good increases, the quantity supplied will increase, and conversely, as the price of a good decreases, the quantity demanded will decrease. This reflects the idea that producers prefer to sell for higher prices. The forces of supply and demand work against each other, generally moderating prices until they reach an equilibrium point where supply and demand are equal.

This explains, for instance, why chocolate Santas and holiday wrapping paper are offered at discounted prices on December 26. People are willing to pay high prices for these items before Christmas because they want to be prepared for the holiday. Once Christmas Day passes, people do not care as much about wrapping gifts or buying chocolate Santas, and stores want to get rid of their leftovers and clear their shelves so they can prepare for the next holiday.

## Systems of Exchange

Three systems of exchange used in marketplaces are bartering, money, and credit.

- Barter is a system in which goods and services are exchanged for other goods or services. Early societies, including the Mesopotamians, used this method of acquiring their wants and needs. Medieval and Renaissance European merchants used barter, trading crafted goods for spices and silks, and French traders in precolonial North America bartered to obtain furs from Native Americans. Barter is still seen today in school cafeterias as kids trade their chips or cookies for someone else's pudding cup.
- Coins first appeared around the seventh century BCE in present-day Turkey. Paper money probably originated in China sometime around 1000 CE and spread to other parts of the world by the late eighteenth and early nineteenth centuries. Money has been various shapes, sizes, and materials over the centuries, but to be considered currency, it must be durable, portable, divisible, uniform, of limited supply, and accepted by a wide range of people. For example, a ten-dollar bill can stand up to a lot of wear and tear and can easily be carried in a pocket or purse. A ten can be exchanged for ones or fives, and more importantly, if you use a ten to buy something for less than ten dollars, you can get change. The U.S. Treasury ensures that all ten-dollar bills are identical and are extremely difficult to counterfeit. And generally, people accept U.S. currency as payment because everyone else accepts it.
- Credit is a system of buying things with a promise to pay later. When you use a credit card at a store, the card company pays the store and collects the money from you later. Credit can also be extended for specific large purchases, such as a house or a car. Lenders profit from these loans by charging fees. Credit card companies assess fees on merchants for each transaction. When credit card users do not reimburse the card company promptly, the user is charged interest as a percentage of the balance owed. Commonly, car loans and home loans are repaid over years, and interest is added to each monthly payment.

## GOVERNMENT AND THE ECONOMY

Government is deeply involved in the economy in many ways, only a few of which are discussed in the Student Book: (1) it regulates business to protect fair competition and prevent the ill effects of monopolies; (2) it creates and maintains infrastructure that businesses depend on, including the legal system, the monetary system, the airwaves, roadways and bridges, and waterways; and (3) it protects people from the side effects of businesses doing business by issuing and enforcing public health, workplace safety, and environmental protection laws and regulations. The government also directly supports workers through labor laws, minimum wage laws, and unemployment insurance for those who have been released from their jobs. Some small business owners have also benefited from government loans earmarked for entrepreneurs.

The Federal Reserve System, known as the Fed, has the power to create regulations that affect the money supply and interest rates. The Fed's primary tool is to raise or lower the interest rate it charges to banks, which in turn causes banks to raise or lower the interest rates they charge to businesses and individuals. Lower interest rates reduce the cost of, and thus encourage, borrowing. Increased borrowing predictably results in increased spending and business investment; thus, lowering interest rates is expected to promote business growth. The Fed raises interest rates to fight inflation, which is a

general, across-the-board increase in prices. Raising interest rates increases the cost of borrowing and so discourages borrowing. This predictably slows spending. And because higher interest rates restrict businesses' ability to borrow, they also discourage investment and hiring and predictably result in greater unemployment.

In addition to regulating the country's economy, the U.S. government also regulates activities that may be harmful to the country's natural resources. The Environmental Protection Agency (EPA) is a government agency dedicated to protecting the health of humans and the environment from pollutants, including those found in chemicals, car emissions, and nuclear waste. It creates regulations and enforces laws about what is and isn't safe for people and animals to eat and drink. The EPA, as well as the Department of the Interior, also oversees the protection of endangered animals, plants, habitats, and natural resources. Congress has also created national parks and other protected areas, which allow people to enjoy the American wilderness while maintaining the safety of the country's native plants and animals.

## THE GLOBAL ECONOMY

The global economy is how goods and services are exchanged between countries around the world. No single country has the resources to produce every single item a consumer could possibly need and want. Therefore, countries sell what they have so they can buy what their people need and want. In many cases, producers sell their abundant natural resources to places that do not have access to them. For example, coastal cities sell fish and shellfish to consumers in landlocked cities.

Unequal distribution of natural resources is not the only reason for international trade. International trade is advantageous because different countries can produce different goods or services at a lower opportunity cost than other countries, and each country benefits from specializing in producing goods and services for which it has the lowest opportunity cost. So even though the United States can and does grow and process wool and cotton that is used to make clothing, these materials and services are often purchased from other countries. This is done not because other countries produce wheat or corn cheaper than the United States can but because the United States benefits more if it dedicates its resources to producing high-tech and cutting-edge items. Other trade situations are related to human and capital resources.

International trade existed long before written history; as long as there have been rivers, coasts, and trails, people have been transporting goods from one place to another. Yet international trade continues to become more and more important as travel and communication technologies continue to develop. People in California buy kiwifruit grown in New Zealand from their local grocery stores; kids in Spain listen to MP3 players built in China with parts sourced from the United States and Japan. Companies are no longer limited to one building, one city, or even one country—they span the globe, working with other multinational corporations to locate natural, human, and capital resources.

Interdependence exists when two or more groups rely on one another for success. Because producers rely on other producers to either buy their goods or supply parts to them, global economic relationships are interdependent relationships. Producers are free to use and choose from among suppliers all over the globe. If weather in one country causes a poor crop, or if production is disrupted by war, politics, or natural disaster, they can buy from a different country.

Interdependence also poses risks. In 2021, the *Ever Given*, a 1,300-foot (400 m) container ship, ran aground in the Suez Canal, completely stopping Suez Canal traffic for a week. The ship, carrying cargo from China intended for the Netherlands, was registered in Panama, owned by a multinational headquartered in Taiwan, and managed by a multinational headquartered in Germany. The price of oil worldwide rose 4 percent and then another 6 percent the next day, as tankers were prevented from bringing oil from the Persian Gulf to Europe. Much of the *Ever Given*'s cargo had been intended to be offloaded onto smaller ships and sent around the Atlantic or into Europe. Shippers and manufacturers throughout the world were forced to adapt their routes and schedules. Consumers experienced shortages of various products, and manufacturers could not get needed parts. Production was disrupted around the globe for months.