







Agriculture and Food Products

Since the colonial period, tobacco has been a major cash crop. North Carolina produces almost one-half of all the tobacco grown in the United States. It comes close to half with sweet potatoes. North Carolina is world famous for pork products like bacon and ham, cucumber pickles, and soft drinks like Cheerwine.

Mineral Resources

North Carolina has abundant mineral resources. The state is a major producer of feldspar, mica, and lithium materials and produces large quantities of olivine, crushed granite, talc, and clays.

Research

Research Triangle Park (RTP) is the leading high-technology research and science park in North America. Founded in 1959, the Research Triangle was originally named for its affiliation with three major research universities: Duke University in Durham, the University of North Carolina at Chapel Hill, and North Carolina State University in Raleigh. The Research Triangle now includes over 170 companies, 42,000 full-time employees, and 10,000 contract workers. Today, RTP is surrounded by pharmaceutical, microelectronic, biotechnology, telecommunications, and textile businesses among others.

Film Industry

North Carolina has been one of the top ten locations for television and film production for more than twenty years. The North Carolina Film Office was created in 1980 to track the industry's impact on the state. Since 1980, the film industry has generated more than \$9 billion in revenues.

Banking

In the 1980s, Charlotte developed into a major U.S. banking center, and related businesses have flourished in the area. Bank of America is headquartered here, along with the East Coast headquarters of Wells Fargo. Charlotte is the second-leading center of banking in the nation by most measures.

Textiles and Furniture

North Carolina was a major producer of textiles and furniture throughout the twentieth century. Forests in the state have long supplied the furniture and lumber industries. Today, North Carolina is an innovator in nonwoven technologies.

Section 1

Economic Concepts

As you read, look for

- how people satisfy needs and wants by acquiring goods and services;
- the kinds of resources that help us satisfy needs and wants;
- ▶ the opportunity benefits, opportunity costs, and trade-offs involved in economic choices;
- how supply and demand determine prices;
- differences among the three economic system models;
- terms: economy, goods, services, consumer, producer, natural resource, capital resource, human resource, scarcity, supply, demand, profit, economist, traditional economy, command economy, market economy.

The term **economy** refers to how people manage material resources in a community or other organized body. A single household has an economy. Cities, states, and nations have economies as well. Because the economies of modern nations routinely interact with those of other nations, we can also talk about the existence of a global economy. There are several basic concepts that explain how economies work at both the smallest (*micro*) levels and the largest (*macro*) levels of social organization.





Needs and Wants

All humans have the same basic needs: air to breathe, food to eat, water to drink, and clothing and shelter to protect us. Beyond these basic needs, the things we desire are called wants. People's wants—things that would make their lives more comfortable or enjoyable—are almost unlimited.

Humans satisfy their needs and wants by acquiring goods and services. **Goods** include *tangible* items (things you can touch) such as food, clothing, houses, and furniture. **Services** are the work or activities people perform, often for a fee. Examples of a service include a doctor's consultation, a haircut from a salon or barber shop, or a chef's activities in the restaurant kitchen. The meal itself is a good, but the chef who prepares it is providing a service.

The person who buys the restaurant meal is a **consumer**—a person who satisfies a need or want by buying a good or service. A **producer** is the person or group of people who use resources to make goods or provide services. The farmer who grows the food for the meal is an example of a producer.

Resources and Scarcity

Resources are the building blocks of an economy. They help us to satisfy needs and wants. There are different kinds of resources. **Natural resources** come from Earth or nature and are useful to humans. They include water, trees and their fruits, or precious metals mined from Earth, like gold and silver. **Capital resources** are the tools used in the production of goods and services. Examples of capital resources include machinery and factories. The term **human resources** describes the persons who produce goods or services. A human can transform a natural resource into a good through effort and activity.

Resources may be abundant in a given place, time, or society, but all resources are limited. This makes them scarce. **Scarcity** is a basic economic concept. Scarcity exists when people and societies try to satisfy unlimited wants with limited resources.

Scarcity requires consumers and producers to make choices with their limited resources. The limits of a person's or community's resources force them to put limits on the amount of goods and services they obtain. Producers also have to make choices about the kinds of goods they produce or the level of services they provide based on available resources. An economic system is created by the choices producers and consumers make based on their limited resources.

Above: These consumers are planning to fill a *want* by purchasing a new car. **Right:** North Carolina's Christmas tree industry ranks second in the nation in total trees harvested.

Costs and Benefits

Individuals, families, businesses, and governments all have to make economic choices. Each choice offers an opportunity that has a *benefit* and a *cost*. The opportunity benefit in a decision is the value of what the person gains. The opportunity cost in any kind of decision is the value of the alternative a person does not choose. A farmer in North Carolina in the early days might have thought about growing either tobacco or cotton. If he chose to plant tobacco, the opportunity cost was that he did not plant cotton.

Opportunity costs and benefits influence decisions about the use of many kinds of resources, including time. Say you have the opportunity to attend a Carolina Panthers football game in uptown Charlotte one Sunday. Normally you go to your aunt's house on Sunday for a big family lunch. If you choose to go to the football game, this is your opportunity benefit. Your opportunity cost is missing out on family fun and food.

Trade-Offs

Whenever an individual, a business, or a government makes a choice to have less of one thing to get more of something else, the result is called a *trade-off*. Evaluating trade-offs requires comparing the costs and benefits of each of the available alternatives with the other. Choosing between a hamburger and a chicken sandwich at a fast food restaurant is an either/ or decision that does not involve a trade-off.

Not all decisions are either/or decisions. By making small changes, a person can trade off a little more of one thing for a little less of the other. For example, when choosing between the family lunch and the Panthers football game, you could make a trade-off. You could arrive earlier at your aunt's house, skip dessert, and leave in time to arrive at the game shortly after kickoff. Your trade-off would have allowed you to have a smaller amount of both opportunities.

Below: The bread this mother chooses is the *opportunity benefit*. The variety she does not choose is the *opportunity cost*.



Supply and Demand

Supply is the quantity of a good or service available for sale. Supply can affect both purchasing decisions and prices. Consumers want to pay as little as they can for something. In general, when the supply of something is high, the price for it is low. Producers want to earn as much as they can for the goods or services they produce. If they keep the supply small, they can charge more for the scarce item. However, it might make sense for them to produce a lot of an item, sell more items at a lower price, and make more profit overall.

Demand describes the quantity of a good or service consumers are willing to buy. Demand is based on three factors. A buyer must want something, have the ability to pay for it, and be willing to pay for it. If those conditions are in place, a consumer will still be conscious about price. In general, demand goes down for an item as its price rises. As the price of an item goes down, the demand for it tends to go up.

Supply and demand are separate concepts, but when considered together, they help us understand why goods have certain costs, and why people are or are not willing to pay those costs. The price of something is the result of an ongoing negotiation between producers and consumers based on quantity supplied and quantity demanded.

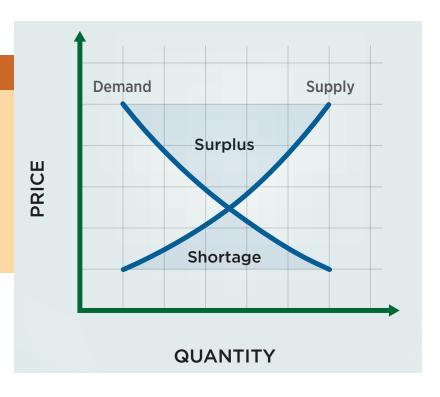
The prices of goods and services are important because they help shape economic decisions. If the supply of an item is low, but buyers want it badly enough, they will pay a higher price for it. If sellers want to sell large quantities of an item, they will often be willing to lower their price to an acceptable level. A producer will try to maximize **profit** (the amount left after costs are subtracted from the price), but will not make prices so high that too many buyers reduce their demand.

Below: When the supply of gasoline is low, the price to fill your tank rises.



Figure 2.1 Supply and Demand

This economic model suggests that the price for a good will settle at a point where the quantity demanded by consumers (at a certain price) equals the quantity supplied by producers (at a certain price).



Basic Economic Questions and Economic Systems

A person who studies the economy is called an **economist**. Economists seek to understand the way communities or societies address the issue of scarcity and decide how to allocate limited resources. Although economists have developed numerous theories about how economies work, in their simplest form, there are four basic questions that decision-makers in an economy must answer. These are the questions:

- 1. What will be produced?
- 2. How will it be produced?
- 3. For whom will it be produced?
- 4. How much will be produced?

Those economic questions are answered by different people in different ways depending on the kind of economic system a society has in place. Economists have come up with a variety of models to explain the kinds of economic systems societies have developed. These models do not describe every economic system perfectly. All societies have an economy that blends more than one economic system model. Although the models are imperfect, they help us determine the broad characteristics that shape an economic system. The three economic system models we will consider are a *traditional economy*, a *command economy*, and a *market economy*.

Traditional Economy

Three aspects help to define a **traditional economy**. First, it tends to be heavily dependent on agriculture. Second, people tend to *barter* (use items of value rather than money or precious metals for exchange). Third, economic decisions are often made on the basis of long-held customs (traditions), beliefs, or habits. Because of this, change comes slowly and a person is likely to do the same kind of work that his or her ancestors did.

Before the British settled North Carolina, the Native American groups had a traditional economy. They hunted and engaged in agriculture. They also traded items of value with other groups. Customs, beliefs, and repeated patterns of behavior helped guide decisions about what had value and what was fair in the course of an economic exchange. Many white North Carolinians practiced a similar economy until the late nineteenth century, as you will see in later chapters of this book.



Left: Parrott's Store has been in business since 1944 in Kinston. It sells a wide variety of products including chicks and rabbits, seeds and plants, animal feed, candies, toys, and bicycles.

Command Economy

In a **command economy**, the government directs the economic system and tries to control how producers answer the four basic economic questions. The government makes rules and regulations that control what is produced and how and where it is produced. Government-mandated controls also affect people's access to economic goods.

At the time Carolina was established in 1663, a new king, Charles II, ruled England. The king issued a charter granting the vast area of land south of Virginia to eight of his supporters. These eight men, known as the Lords Proprietors, ruled Carolina, but their rule did not meet the king's expectations. Their plans do, however, provide an example of how a command economy functions, as you will see in your study of the Proprietary period.

Market Economy

In a **market economy**, economic decisions are made at an individual, rather than a government, level. The four basic economic questions are answered by producers based on their beliefs about how consumers will respond to what they produce. In turn, supply and demand influence what is produced and how it is produced. Producers hope they make the right decisions about consumer demand. A lack of demand for a product can doom a business.

Figure 2.2

Continuum of Economic Systems



A *continuum* is the range that exists between two different possibilities. This Continuum of Economic Systems is useful for comparing the economic freedom of various countries.

It's Your Turn

- 1. Give three of your own examples of goods and three of services.
- 2. Describe the three kinds of resources.
- 3. Give an example from your own family of a trade-off.



Price's Chicken Coop in Charlotte is famous for take-out food, including its fried chicken dinners. In a market economy, producers like the Chicken Coop must make wise decisions about consumer demand.

Section 2

North Carolina's Resources

As you read, look for

- the types of biological resources found in our state;
- the varied uses of North Carolina's minerals;
- the difference between renewable and nonrenewable resources;
- ways capital and human resources can transform natural resources into products;
- terms: biological resource, mineral resource.

An economic system uses natural, capital, and human resources to produce goods and services. North Carolina's natural resources have played an important part in the state's economic development. However, businesses also need capital and human resources to grow and prosper.

Natural Resources

Natural resources are those products of Earth and its atmosphere that are useful to humans. North Carolina's abundant natural resources include many kinds of biological resources as well as mineral resources.

Biological Resources

Plants and animals are **biological resources**. These resources are renewable; they can replenish themselves over time. Because biological resources are often farmed, harvested, or hunted, humans sometimes have to play a role in the renewal process. In our state, for example, shrimp fishermen adhere to market quotas that keep them from catching too many shrimp at one time, so that the population can replenish itself.

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The scientific name for plants is flora, and the name for animals is fauna.

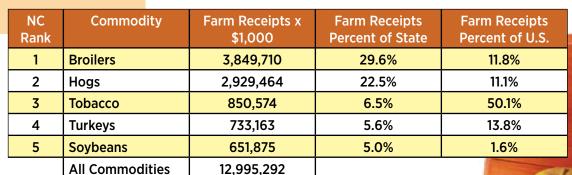
Left: Different plants and animals thrive in different parts of the world. Humans sometimes play a role in replenishing these renewable biological resources.

Agriculture

North Carolina's rich soil has always supported agriculture from one end of the state to the other. Small, family-operated farms were the norm in the state for centuries, but in the last few decades they have given way to *agribusiness* (farming thought of as a large business) companies. Although most North Carolinians no longer make most of their living from farming, more than 50,000 small farms are still part of our state's economy. Together, small farms and the agribusinesses in our state are the largest contributors to the state economy. Their efforts make North Carolina a national leader in products like flue-cured tobacco used in cigarettes, cucumbers used for pickles, strawberries eaten fresh or made into jam, and turkeys raised for Thanksgiving.

Figure 2.3

North Carolina's Top Five Agriculture Commodities, 2014



Source: Economic Research Service, U.S. Department of Agriculture **Map 2.1 North Carolina** Resources Map Skill: Which area of the state produces the most apples? Why? VIRGINIA KENTUCKY TENNESSEE GEORGIA SOUTH CAROLINA Tobacco Poultry ATLANTIC OCEAN Sand and gravel 50 50

Forests

A forest is an area rich in plants and animals where trees are the predominant plant. The abundant forests of our state provide important resources that help our economy. Approximately 60 percent of all land in North Carolina is timberland. The state has more than sixty different commercial species of trees, including yellow and white pines, red and white oaks, hickory, soft maple, sweetgum, ash, black gum, and yellow poplar. Cedar trees, which grow all over old fields that people once farmed, are ground up into chip for landscaping needs.

Forests and the industries they support provide income opportunities for many North Carolinians. The forest products industry employs one in six of the state's manufacturing workers, second only to the textile industry. North Carolina leads the nation in the production of upholstered and wooden household furniture. The state's furniture industry ships 29 percent of the nation's wooden living-room furniture, 44 percent of all wooden dining and kitchen furniture, and 33 percent of all wooden bedroom furniture. One of the most famous wooden products made in the state is the Kennedy Rocker, named to honor President John F. Kennedy, who sat in it because it helped ease the pain he suffered from a back injury. This type of rocker was made in Asheboro for decades and is now produced in Troutman.

North Carolina is also a major producer of Christmas trees, with trees being grown in 70 of the state's 100 counties. Our state currently supplies 15 percent of the nation's Christmas trees and has the potential to greatly increase its output. The Frazier fir, our best-known type, grows most easily on mountain slopes of the "High Country" in the northwestern corner of the state.

The state's forests offer many additional benefits. National forests, national and state parks, and private campgrounds provide opportunities for recreation. Forests also protect watersheds, reduce flood crests, and improve water quality in streams. They even provide opportunities for education and training. Many of our colleges and universities offer undergraduate and graduate degrees in forestry and related fields.

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IN **OTHER** WORDS

Timber is wood that is suited for building or for carpentry.



Paper mills in North Carolina also produce "fluff pulp" used as part of the absorbant material in baby diapers.





Each year approximately 250,000 North Carolinians spend approximately \$311 million on deer-hunting expenses.

Wildlife

Wildlife is the term used to describe animals that live in the state's diverse natural environments. One of the most recognizable wild animals in North Carolina is the white-tailed deer. This mammal will eat all kinds of tender leaves and stems, but acorns from our forests are among its favorite foods. Today, there are approximately one million white-tailed deer in North Carolina, and more people hunt this mammal than any other game species in the state.

Other wild animals that are hunted or trapped in North Carolina are the black bear, wild turkey, fox, and small game like the squirrel, raccoon, and opossum. Although hunters and trappers must observe seasons for most animals they pursue, some wild animals have no such limits. The coyote, which entered the state in the 1980s from neighboring areas, is considered to be invasive and can be hunted at any time to keep the population in check. The feral swine (wild hog) is the most dangerous of the state's invasive species, as it carries disease and destroys crops and personal property. There are no limits on hunting this animal.



Fish and Fisheries

North Carolina's many kinds of water habitats support a diverse population of fish. The more than three thousand miles of streams, rivers, and lakes in western North Carolina are home to brook, rainbow, and brown trout. Offshore, where the Gulf Stream comes near our coast, plentiful species include sailfish, marlin, bluefish, tuna, mackerel, shark, and bottom fish like sea bass, tilefish, and grouper. Streams and lakes between the mountains and sea contain catfish, bass, striper, crappie, white perch, and many other species.

Commercial fishing is an important economic activity in North Carolina. In addition to fish, North Carolinians harvest several types of shellfish, including blue crabs, clams, oysters, scallops, and shrimp. The blue crab and shrimp fisheries are North Carolina's two most valuable in terms of landings and dollars.



Top Left: Fishing charters are an important economic activity on the Outer Banks. **Top Right:** A commercial fisherman shows off his crab catch. **Left:** A deck hand sorts the day's catch on the deck of a trawler. **Above:** The sea bass is one of the many species of fish found off the coast of North Carolina.

special Feature

Growing Up...

On a Shrimper

Shrimp boats are a familiar sight up and down the North Carolina coast. The boats have a distinctive appearance, with the sway of their deck and the roundness of their pilot house. They are also recognized by the nylon nets that extend out of the boats from a frame called an outrigger.

Shrimping for a living is more than a century old on the Tar Heel coast. Hundreds of families from Wanchese to Calabash have male members who spend as much as half of the year on the shrimpers. They troll the waters off the state's coast for several months in the summer, then head south all the way to Florida as winter approaches. Some stay in Florida, coming home only for the Christmas holidays. At the start of the twenty-first century, almost a thousand coastal families still made their living as "bug-hunters," the joking nickname of shrimpers. Bradley Styron of Cedar Island started trawling as a teenager in Core and Pamlico Sounds.

Commercial shrimping began in the state in the early 1900s. By the 1930s, shrimping had become a way of life around Morehead City and Beaufort. Fishermen at Harkers Island developed the efficient trawling method of "channel netting" during that period. As Americans began to increase the variety of their food after World War II, the market for both frozen and fresh shrimp grew. By the 1960s and 1970s, shrimper families often had a family member who would take a refrigerated truckload to retailers in the Piedmont. During the summer, some even set up their own temporary shops by the side of major highways.

North Carolinians catch three types of shrimp: brown, pink, and white. Each has a particular habitat in and around the marshlands of the sounds and the mouth of the Cape Fear River. A shrimper has to know when and where to look for each type of shrimp. For example, brown shrimp swim out into the ocean at night, usually in the fall.

Shrimpers learn by doing. Often, a whole family is involved, particularly in the endless repair of nets. The captain of a shrimper will hire relatives and friends to help on the boat. The deck hands' main responsibility is to reel in the nets once shrimp are collected. The hands then throw out the "trash" (which may include other fish) and put the shrimp into the hold of the boat. There, a fresh pile of ice keeps the shrimp as cold as possible. In 1985, Bradley Styron caught 1,500 pounds of shrimp in one night in Pamlico Sound, almost three times the average.

Very few North Carolina women have been shrimpers. However, female members of a shrimper family do the deheading of the shrimp once they are brought into port. The shrimp are dumped onto a long table, and the girls and older women quickly slice off the inedible part of the animal. The shrimp are then sold fresh to a dealer or frozen for future marketing.

Some of the most important members of the shrimper community are the boat builders. The Varnam family of Holden Beach in Brunswick County built shrimp boats throughout the twentieth century.

Mineral Resources

Mineral resources are natural substances found inside Earth. They are formed by slow geological processes. Minerals become a resource when they exist in enough quantity that they can be extracted from Earth for economic gain. Unlike biological resources, mineral resources are nonrenewable. Once taken from Earth, they are not replaced by nature.

In the 1800s, North Carolina was an important gold-producing state, and it produced smaller amounts of iron ore and coal. Today, none of those minerals are found in large enough quantities to justify the expense of mining them. But many North Carolinians and tourists still try their hand at panning for gold in our streams—and sometimes also find such gemstones as rubies, sapphires, garnets, emeralds, and the occasional diamond.

North Carolina does not have oil or gas production, but it does produce many lesser-known but important minerals. The state leads the nation in the production of feldspar, lithium minerals, scrap mica, olivine, and pyrophyllite. It ranks second in phosphate rock production.



The emerald has been designated the official North Carolina precious stone. The largest single emerald crystal discovered in North America was found at the Rist Mine at Hiddenite in 1969. It weighed 1,438 carats.

Figure 2.4

North Carolina Minerals and Their Uses

| Mineral | Used for | |
|--------------------------------|---|--|
| Clay | Bricks, drain tiles, floor tiles | |
| Feldspar | Television picture tubes, bath tiles, abrasives in cleaners, roofing shingles | |
| Granite | Dimension and building stone | |
| Gemstones | Jewelry | |
| Crushed rock, sand, and gravel | Road building, riprap for erosion prevention | |
| Kaolin clay | Dinnerware, fine porcelain, paper coating | |
| Olivine | Liner in kilns and heating furnaces | |
| Quartz | Television picture tubes, computer parts, telescope mirrors | |
| Peat | Soil enhancer, insulation for packing fruits and vegetables, protein additive in cattle food | |
| Phosphate | Plant food, fertilizers, animal feed, pesticides, ceramics, photography | |
| Pyrophyllite | Soaps, bleaching powders, electrical insulators, talcum powder | |
| Scrap mica | Joint compound, paint extender, insulation, auto manufacturing | |
| Silica sand | Glass, television and computer screens, electronic chips | |
| Spodumene | Lithium for supersonic aircraft, spacecraft, paints, batteries, grease, lubricants, photography, medicine | |
| Talc | Paints, insecticides, rubber products, ceramics, paper coatings, dinnerware, talcum powder | |







Left: Brown raw clay, white talc, and peat used in pots and as a soil enhancer.

Figure 2.5

Economic Factors of Production

An entrepreneur is a person who organizes, manages, and assumes the risks of a business or enterprise.



Capital Resources

In general, it takes some kind of capital resource to transform a natural resource into a product. In North Carolina, capital resources include textile mills, furniture factories, printing shops, and chemical plants. The machines and equipment used inside these processing facilities are also capital resources.

Human Resources

Human beings are an economic resource when they supply the labor—whether physical or mental—that transforms a resource into a good or service. In an economic system, laborers are paid for the work they perform.

Today's diverse and interconnected state, national, and global economies require new skills and specialization. People who want good jobs need to have education and specialized training to make them attractive to employers. Each of you is being educated in part to give you the opportunity to become a human resource in the economic system where you choose to live and work.

It's Your Turn

- Name three benefits offered by North Carolina's forests.
- 2. Which gemstones are found in our state?
- 3. In the production of which five minerals does North Carolina lead the nation? How are these minerals beneficial to you?

Section 3

Recent Trends in the North Carolina Economy

As you read, look for

- reasons for the decline in textiles, furniture, and tobacco;
- new trends in business, technology, and farming;
- how North Carolinians are adapting to the global economy;
- methods for measuring the economy;
- ▶ terms: globalization, no-till farming, Great Recession, Gross Domestic Product (GDP), Consumer Price Index (CPI), inflation, unemployment.

North Carolinians saw great change impact their state in the early part of the twenty-first century, particularly to their economy. For decades, most citizens of the state had depended on particular types of jobs being available in almost every community. All of that began to change during the 1990s, and the trend accelerated into the 2010s.

One change was common almost everywhere. The state's manufacturing base all but went away. The cause was often competition with foreign markets, where goods could be made cheaper. The hardest hit by **globalization** (the development of an increasingly worldwide economy marked by free trade and reliance on cheaper foreign labor) were what generations of state residents called "The Big Three": textiles, furniture, and tobacco.





Above: Globalization is the development of an increasingly worldwide economy characterized by free trade and reliance of cheaper foreign labor. Left: The industries most affected by the economic downturn have been textiles, furniture manufacturing, and tobacco production.

The Decline of "The Big Three"

Places where textiles had been the chief means of employment, like Mooresville in southern Iredell County, had one closing after another. Giant companies, like Burlington Industries, which made rayon fabric, and Cannon Mills, a world leader in making towels and sheets, all but disappeared. Only a few older companies, like Glen Raven in Burlington and McCrary in Asheboro, still operated, often turning to new "nonwoven" fabrics to save costs.

Furniture making lost half its market share to Asian competitors, but the Bernhardt family in Lenoir and the Shuford family in Hickory continued to profit with their high-quality chairs and sofas. Despite competition from Las Vegas, Nevada, the city of High Point continued to be one of the largest furniture markets in the world, with more than 100,000 buyers a year attending its shows.

Although smoking rates declined in the United States, North Carolina continued to be a world leader in the manufacture of tobacco products. Reynolds American in Winston-Salem and Lorillard in Greensboro upgraded their machinery and continued their growth in Asian markets, often, ironically, selling to the very workers who had taken away North Carolina jobs in textiles!

The Rise of Innovative Businesses and Technology

During the same period, many outsiders liked North Carolina enough to locate their innovative businesses here. Ashley Furniture, the country's largest maker of chairs and tables, built a large, computerized complex near Advance, in Davie County. Honda, the Japanese automobile maker, started a plant in Greensboro to make airplane engines, using the latest in robotic methods. In each case, hundreds of workers came from more than a half dozen counties to work every day and had some of the highest industrial wage rates in the state.



North Carolina had thirteen "Fortune 500" companies in 2015, meaning they were on Fortune magazine's list of the highest-grossing companies in the United States. Among the largest companies were Bank of America, Lowe's, Duke Energy, Family Dollar, BB&T, and Reynolds American. The first four companies are located in the greater Charlotte area, the last two in Winston-Salem.



The most visible new jobs in the state are those offered by famous technology companies, all of which have a global connection. Google has a "cloud-based" server in the small town of Collettsville, in Caldwell County. Facebook stores billions of pages at its Forest City facility. Apple has a digital storage operation in Maiden, in Catawba County. Lenovo, a Chinese company, has a large facility near Morrisville, in Wake County. Cisco Systems, maker of software, had done well with branches in the Charlotte and Raleigh areas.

New Trends in Farming

The number of farmers across the state decreased, but the 50,000 who stuck with the land survived by changing their mix of crops. Folks who still grew tobacco also rotated soybeans, corn, and sometimes cotton to diversify their income. Many farmers across the state, like Rowan County's Darryl Corriher, a graduate of Duke University, use no-till farming to cut down on costs, minimize soil erosion, and get a better yield. In no-till **farming**, planting is done right through the residue of previous plantings and weeds with a device that cuts a small slot, followed by equipment that places seeds in the slot and closes it. Nearby, Michelle Patterson and her family hire documented workers from Central American countries to pick their hundreds of acres of strawberries and tomatoes. Packages marked Patterson Farms are found in Food Lion stores across the southeastern states. Down east, hundreds of farm families have turned to large-scale pork production. A farmer at the base of Cold Mountain, near Waynesville, makes money by growing rhubarb for an Asheville restaurant. "Farm" to "table" is a growing trand in North Carolina, wherein restaurants supply their menus with food items that are grown locally.

IN **OTHER** WORDS

Cloud computing is basically Internet computing—using servers, networks, and data centers that are located somewhere else. Early computer scientists often used a cloud shape in their diagrams and slideshows as a vague way to represent "the network"—that big grouping of computers and storage devices out there somewhere that were "somebody else's problem to deal with."



PIEDMONT BIOFARM

Markets such as this one in Durham sell fresh produce directly to consumers.

special Feature

Carolina Progress

The State of "Nonwoven" Possibilities

Sometimes, to make something grow, you have to prune it; in other words, you cut back the excess in order to get the best possible return. This idea works for plants—both the kind that grow in nature and the kind that people build, in places called factories. This has been true in North Carolina in your lifetime. Where old things like tobacco farming have been trimmed to their bases, they have often staged comebacks, making money for their owners and providing wages for their workers. The same is true for some of our factories.

This idea is particularly the case for one of the fastest-growing areas of the North Carolina economy: nonwoven fabrics. "Nonwovens" consist of tiny fibers—some made from natural substances like bamboo, others made from synthetic materials like polymers—which are spread out in an ultra-thin layer, then glued together. The result is a very stretchable material that holds things in a remarkable way. Nonwovens can be thick or thin, *impermeable* (meaning nothing can get through them without a strong poke) or *porous* (meaning that air or liquid can seep through their ultratiny holes).

In the early 2000s, North Carolina joined a worldwide movement to make packaging, coatings, and protective devices out of nonwovens. North Carolinians encounter nonwovens when they see doctors and nurses at our medical centers, like Durham, wearing very flexible masks made in our state. They also buy food packaged in nonwovens, like the sticky rice that sells in Middle Eastern and Asian stores on Central Avenue in Charlotte. They also ride by such materials on our new highways. "Geotextiles" are often in the fabric put on hillsides and in roadside ditches to slow erosion.

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Background: A "nonwoven" is a fabric-like material made from long fibers, bonded together by chemical, mechanical, heat, or solvent treatment.

Below: Nonwoven fabric can be produced in many different colors.

Bottom: These seedlings are growing through an agrotextile ground cover.





Top: Geotextiles are industrial-strength nonwovens placed on top of the soil before other materials are installed. **Top Right:** The most common consumer nonwoven is found in your reusable grocery tote bag. **Above:** Nonwoven materials are used in numerous applications found in hospitals: surgical gowns, drapes and covers, surgical masks, caps, shoe covers, bath wipes, and wound dressings.

Nonwovens have helped the North Carolina economy rebound from some of its recent manufacturing losses.

More than twenty cities in the state have returned to these textiles to restore their economic base. In the 2010s, the biggest concentration was in the smaller towns north

of Charlotte, like Statesville, Thomasville, and Conover. Some of these companies made ultra-light and super-strong materials used by another of our state's industries, furniture. Increasingly, the foam inside cushions is wrapped in a porous nonwoven, which allows the cushion to "breathe" and last longer. This saves money for consumers, allowing them to supply their *needs*, and makes money for producers. Money in the bank is something all North Carolinians have as a *want* as the state goes through the current transition in its economy.

What has made our state a star in this new industry has been the work done at North Carolina State University in Raleigh. It established the Nonwovens Institute (NWI) to train people from across the state in the new technologies needed to produce the fabric. Its founder is one of the world-renowned residents of our state. Iranian-born Behnam Pourdeyhimi has been so successful that in 2015 the university erected a new building for the NWI on its state-of-the-art Centennial Campus. More than sixty private companies support the venture. "NC State is the place to be when it comes to nonwovens," said one visitor. "Dr. Pourdeyhimi is touching everybody and everything every day!" This includes the newcomers who came with the German company that relocated to Durham, and the displaced cotton mill workers, all natives to our state, who have found new kinds of jobs.

The global presence of the NWI, although something very new in the state, nevertheless has a historical basis, and proves the point about pruning. The older School of Textiles, which had been devoted to weaving technology for more than a century, was its original home, showing that a state and its schools can bring together needs and wants in a powerful, positive way and build futures for its citizens.

Adapting to a Changing Economy

As you will learn in the rest of this book, when new kinds of economic habits appear in our state, needs and wants often take a beating for some people, for some time. More than a quarter of a million North Carolinians lost factory jobs in the early 2000s, and often they were not able to find similar factory jobs elsewhere. For some years during the **Great Recession** (the sharp decline in economic activity between 2008 and 2013, which is generally considered the largest downturn since the Great Depression), the state's community colleges were strained to provide enough job retraining to help former factory workers find new kinds of employment.

Just as in the past, newcomers to North Carolina want a better living for themselves and their families. Immigration to the state has both helped and hurt this employment picture, depending upon the location. Immigrants make up the majority of the jobholders in some places, like the largest pork-processing plant in Sampson County. State leaders, however, have found that places with large numbers of outside immigrants improve the local economies at a faster rate than places where there is little immigration.

Sometimes, the jobs of the last two decades have seemed to come and go at a rapid pace. For example, an international marketer of bananas brought its headquarters to Charlotte, but left a few years later. One of the uncertainties of the present is the constant shifting of who will get hired, and where, across the state. Although change seems more rapid than ever before, this history of our state will suggest that North Carolinians have always been adaptable to change, even if they are cautious about doing it. In future chapters, you will learn how our heritage helps us in altering our habits in a host of ways.



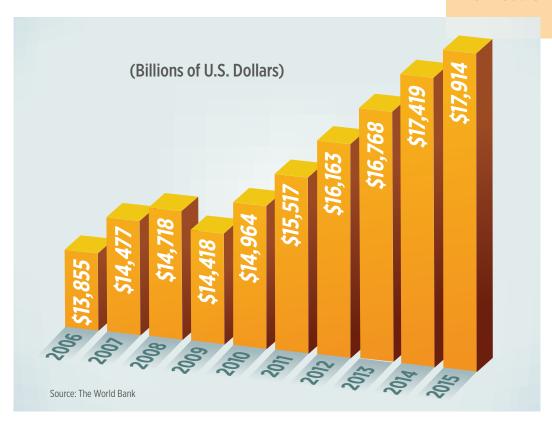
Measuring the Economy

Economists gather information to measure an economy's strength by using a variety of economic indicators. In turn, businesses, individuals, and the government use the information from economic indicators to make better economic decisions.

One of the most important economic indicators is the **Gross Domestic Product (GDP)**. It measures the total value of the final goods and services produced in the United States in a certain time period, usually one year.

Figure 2.6

U.S. Annual Gross Domestic Product



The **Consumer Price Index (CPI)** is an economic indicator that measures prices. Each month, the prices of goods and services are checked to see if they rose or fell in comparison to previous months.

When the CPI shows that prices are rising steadily, this indicates **inflation** (a continual increase in the price of goods and services). In this situation, price increases mean a buyer can afford less with the same amount of money. If wages do not increase at a level to keep up with inflation, a consumer's spending power goes down even further.





The United States has the largest Gross Domestic Product of any country. China, Japan, Germany, and France round out the top five nations in terms of GDP.

Symbols to represent the world's top currencies

Figure 2.7

U.S. Annual Consumer Price Index



The **unemployment** rate is another very important economic indicator. A person is described as unemployed if he or she does not have a job but has been actively looking for work in the previous four weeks and is currently available for work. Each month, a government report shows the percentage of people who are out of work and are looking for jobs. If the supply of jobs is low, workers are often willing to accept lower pay in order to have a job. If unemployment rates are low, businesses will have to pay a higher wage because the supply of available workers is smaller.



To calculate the Consumer Price Index, "economic assistants" from the U.S. Bureau of Labor Statistics visit or call thousands of retail stores, service establishments, rental units, and doctors' offices all over the country and record the prices of about 80,000 items each month.

It's Your Turn

- 1. In which market has tobacco use declined, and in which markets has it grown?
- 2. How have farmers adapted to survive in the changing economic environment?
- 3. How was North Carolina affected by the Great Recession of the early 2000s?



Section 4

Personal Finance

As you read, look for

- Setting a Purpose
- ways personal finance decisions affect the economy;
- the benefits of charitable giving and investing;
- the use of credit;
- ▶ terms: income, expenses, overdraft, interest, investment, certificate of deposit (CD), bond, stock, mutual fund, credit, repossess.

You have seen how the economy of our state is affected by the national and global markets. Our economy is also affected by the actions and decisions of individual citizens. Personal finance consists of the decisions individuals make in the management of their money. You may think the management of your own finances affects only you and your family. However, good or bad decisions not only help or hurt individuals, but, added together, they affect the overall economy of entire communities.



DID YOU

Most people prepare a budget based on the calendar year. Governments and businesses often work on a *fiscal* (relating to money) year that runs from July 1 to June 30.

Income and Expenses

The money that an individual acquires is called **income**. The source of income could be a gift or prize, money earned from performing a specific task, an allowance given by a parent or guardian, earnings at a regular job, or returns from an investment. **Expenses** are the spending of some or all of that money for various purposes. Some income may be spent for basic needs, including food, clothing, and shelter. Expenses can also be for wants, like smartphones, games, concert tickets, tablets, or hobbies.

People with a steady income usually deposit some of their money in a checking account at a bank so they can pay their expenses. It is important to record all checks written, either on paper or online, and deduct the amount of each check from the balance (total amount) in the account. That way, no check will exceed the funds in the account. This will avoid having an **overdraft**, or "bouncing a check." Overdrafts usually result in fees—one fee charged by the bank and one charged by the person or company to whom the check was written. A person working for \$10 an hour who bounced a check and had to pay fees of \$50 would have to work more than five hours just to pay the overdraft fees.

The best way to manage money is to have a budget, or plan, for how money will be used. The most important rule is that amounts for expenses should never be more than the amount of income. The first items in a budget should always be for necessary expenses. If there is any money left, some of that money can be used for other purposes.



Charitable Giving

Another use, or purpose, of money is for charitable giving to help other people. Charitable giving can be challenging if your entire income is being saved for college, or even for a new winter coat! But there are many reasons that charitable giving is good for you. There are the benefits of lower taxes; people feel happier about themselves when they donate to charities; and the donation helps people and causes that are meaningful to the giver. Some studies even show that giving improves your health and reduces stress! People give to charities such as the Red Cross, United Way, Salvation Army, religious institutions, universities, and other nonprofit organizations whose primary goal is to help other people. In North Carolina, one of the largest organizations is the Foundation for the Carolinas, headquartered in uptown Charlotte, which evaluates needs and distributes funds for a host of organizations. The Z. Smith Reynolds Foundation in Winston-Salem serves a similar purpose.

| Foundation | Annual Giving (2015) |
|--|-------------------------|
| The Bank of America Charitable Foundation | \$175,299,678 |
| The Duke Endowment | \$63,251,758 |
| Golden LEAF Foundation | \$45,790,656 |
| Foundation For The Carolinas | \$45,224,849 |
| The Burroughs Wellcome Fund | \$30,849,016 |
| Kate B. Reynolds Charitable Trust | \$22,753,821 |
| The Winston-Salem Foundation | \$21,409,663 |
| The Duke Energy Foundation | \$16,681,141 |
| Blue Cross and Blue Shield of North Carolina Foundation | \$15,542,092 |
| Z. Smith Reynolds Foundation, Inc. | \$14,998,062 |

Source: Grantsmanship Center

Saving and Investing

Saving and investing money means that, rather than spending all income on goods or services now, some income is budgeted for something that will bring a future benefit or will earn more money. Saving should be part of any budget. The simplest saving method is through a savings account. While the money is not being used, it usually earns a small amount of **interest** (money paid for the use of money) that is periodically added to the account. Saving can be important for several reasons. One is to provide an emergency fund for a job loss or unexpected expenses such as car repairs or medical bills. Financial managers recommend that a person have enough money saved to cover up to three months of expenses. Saving can also be a way of achieving a future goal. For example, many people save to buy a new car, pay for a college education, or buy a new home.

Figure 2.8 The Ten Top-Giving Foundations in North Carolina



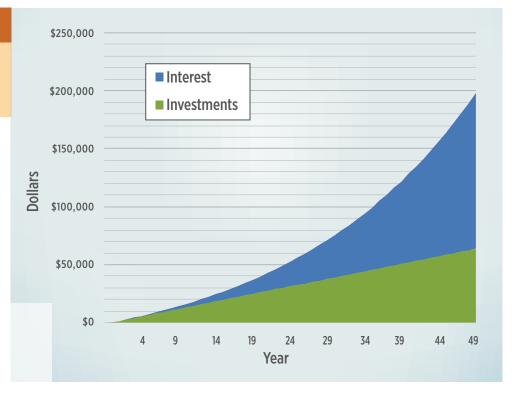
Background: Saving and investing is a form of making your dollars grow.

An **investment** is money spent on something with the goal of making a profit (more money). Financial investments involve putting money into things like stocks and bonds as a way to make money in the future. Real investment involves putting money into something physical such as equipment or real estate. Investments can be beneficial, but they can also be risky. For example, the value of property can go down, or a company's stock can lose value. Some investments are safer than others. Safer investments do not earn as much profit, but they guard against loss. People need to think carefully about how much they can afford to risk when they invest.

One safe investment is a bank's **certificate of deposit (CD)**. Money invested in a CD must be left in place for the full time specified, but interest rates for CDs are usually higher than for savings accounts. For example, suppose a person bought a \$10,000 CD for one year with an interest rate of 3 percent. At the end of that year, the CD would be worth \$10,300. The interest rates on CDs and savings accounts depend on what is happening in the national economy. CDs are usually a safe investment because, if purchased from a bank insured by the Federal Deposit Insurance Corporation (FDIC), money in them, just like money in an insured bank's checking and saving accounts, is covered up to a certain dollar amount by the FDIC.

Another type of investment is a **bond**. Basically, the investor is lending money to the government or to a company. That loan will be paid back with interest on a specified date. U.S. Savings Bonds and U.S. Treasury Bills are bonds issued by the U.S. government. At the end of a specified period, investors will receive all the money they invested plus interest. Cities also issue municipal bonds, and school boards issue school bonds if they need money for building projects.

Figure 2.9
Savings Projection
@\$25/Week for
Fifty Years



Stocks are another kind of investment. A corporation issues shares of **stock** (ownership shares in the company) to raise money. The investor who buys stock is actually buying a part of the company. If a company issues 100,000 shares of stock and you buy one of them, then you own 1/100,000th of the company and

To the state of th

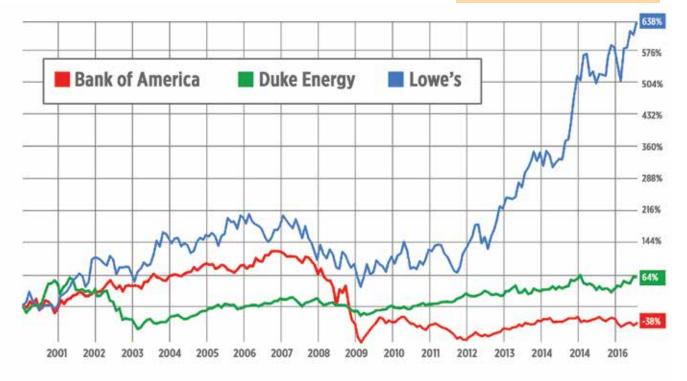
become a shareholder. Stocks can be very risky; if a company goes out of business, investors can lose everything they invested. On the other hand, stocks may bring the highest return on investment. If the company makes a large profit, then the investors get a portion of this profit, based on their number of shares. An investor can also make money when the price of the stock goes up. Selling the stock for more than the purchase price earns the investor a profit. It is important to research a company's assets and its stability or to have a professional do that for a fee to ensure you are investing wisely.

Above: The "bull" and the "bear" are symbols of rising and falling stock market values. These animals stand for the opposite directions of market trends. The bull and bear market terms mirror their namesake animal traits.

Mutual funds are usually safer than individual stocks. A **mutual fund** pools the money from many investors and buys many different stocks and bonds. Because the money is spread out in different investments, the risk is also spread out. Mutual funds often include investments with different levels of risk. The stock of one of the companies in the fund might go down, but it is unlikely that every investment will go down. Mutual funds are managed by professionals, who charge investors a fee for managing their accounts.

All of these investments are ways of letting money earn more money. These investments are also good for the overall economy, because investment is what enables businesses to become established, to expand, and to grow. Banks use money from savings accounts and CDs to make loans to others to buy cars and houses or to start businesses. A healthy economy depends on all of these investments.

Figure 2.10 North Carolina Stock Graph



Credit

Credit is an arrangement by which a buyer can take possession of something now and pay for it in the future, usually with interest. Credit is an important part of the modern economy. It enables businesses to start up and expand and allows families to buy homes, cars, and furniture. All of this keeps the economy going by keeping money circulating. When people buy homes, builders get to build them or repair those already built. Builders buy supplies. Suppliers earn money that they then spend on other things, keeping more people employed, and so on. Common forms of consumer credit include personal loans, mortgages, and credit cards.

Taking out a loan or buying something on credit can cause a financial hardship if a person borrows or spends too much. Payments on loans and credit cards are usually made monthly. So the monthly payments need to fit into a person's monthly budget. How much of a monthly payment a buyer can afford often affects what type of car or how big a house the

buyer purchases. Keep in mind that the lender keeps the title of a car until the entire debt is paid. If the buyer misses payments, the lender can **repossess** (take back ownership of) the item.

Credit cards make it easy to purchase things, but it is also easy to buy too many things on credit. Credit card terms vary. Some credit card companies require you to pay the balance owed in full at the end of each billing period. Others allow you to make minimum payments each month, but the companies charge interest on the unpaid balance. Most credit cards also charge fees for late payments. It is best to pay the entire amount owed when the credit card bill arrives each month. Making

just the minimum payment each month can lead to additional debt and can cause financial ruin. Over an extended period of time, the interest charges can add up to more than the value of the item that was purchased.

70

Top: Credit cards require a lot of responsibility. **Above and Right:** Your credit score determines what kind of interest rate and how much credit you will have when buying a home or car.

Making payments on time and in full is important to a person's credit history. Based on credit history, each individual earns a credit score. Financial institutions and businesses check credit scores to decide whether or not a person qualifies for a loan or a credit card and, if so, how much credit that person deserves. Although the practice is controversial, insurance companies and potential employers often check credit histories to see if a person uses credit responsibly. People with poor credit histories and low credit scores may find it difficult or impossible to get additional credit. If they can get credit, it may be at higher interest rates. On the other hand, those with good credit scores may have more financial options, such as lower interest rates on loans.

Many of these aspects of personal finance may be in your future. Begin now to develop good financial habits. Saving for the future, investing wisely, buying only what you can afford, and building a good credit history will be important to your quality of life. Good financial decisions are important to communities, the state, and the country. Poor financial decisions can affect the entire economy. Companies lose money, people lose jobs, and everyone suffers.



The most widely used credit scores are the FICO scores (pronounced fy-coh). The name comes from the Fair Isaac Corporation, the creator of the scores.

It's Your Turn

- 1. Explain the damage caused by having an overdraft in your checking account.
- 2. Why would a mutual fund usually be a safer investment than a single stock?
- 3. Why is it important to have a good credit score?

Figure 2.11

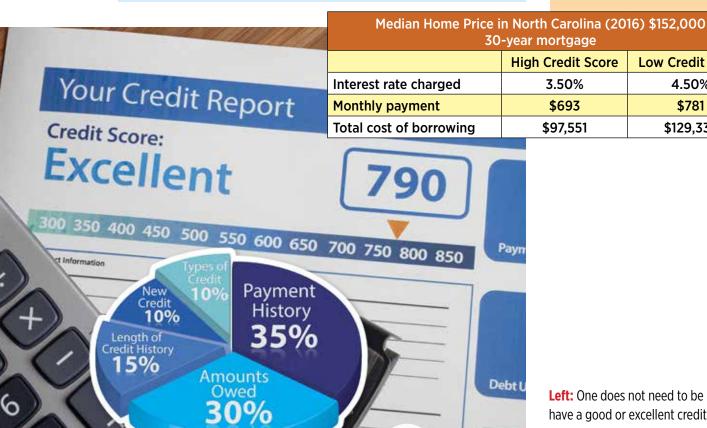
Cost of Buying a Home

Low Credit Score

4.50%

\$781

\$129,337



71

Left: One does not need to be rich to have a good or excellent credit score.

Chapter Review

Chapter Summary

Section 1: Economic Concepts

- The term *economy* refers to how people manage material resources in a household, business, city, state, nation, or the world.
- Human beings have needs and wants, which are often satisfied through the acquisition of goods and services. Consumers are people who acquire goods and services; producers use resources to provide these goods and services.
- There are three types of economic resources: natural, capital, and human. Natural resources come from Earth; capital resources are the tools used in the production of goods and services; and human resources are the people who produce goods and services.
- Scarcity is an economic concept referring to the choices consumers and producers make regarding limited resources.
- An economy may be a traditional economy, a command economy, or a market economy. The type of economy depends on the answers to four basic questions: what to produce, how to produce, for whom to produce, and how much to produce.
- In a market economy, the price of a good or service is determined by the law of supply and demand.

Section 2: North Carolina's Resources

- North Carolina's abundant natural resources support a variety of goods and products in agriculture, forestry, fisheries, and minerals.
- Capital resources, such as processing facilities, machines, and equipment, transform natural resources to products.
- Human resources provide the physical and/ or mental labor to transform a resource into a good or service.

Section 3: Recent Trends in the North Carolina Economy

- Globalization of the economy has led to a decline in North Carolina's "Big Three" industries of textiles, furniture, and tobacco.
- In the past twenty years, innovative businesses have relocated to North Carolina and brought relatively high wages to their workers.
- Many North Carolina farmers have changed with the times and grow a more diverse group of crops.
- In the early 2000s, over 250,000 North Carolinians lost their factory jobs and had difficulty finding similar jobs elsewhere.
- The economy can be measured by important indicators such as the Gross Domestic Product (GDP), the Consumer Price Index (CPI), the inflation rate, and the unemployment rate.

Section 4: Personal Finance

- Income helps individuals pay for their expenses, which include needs and wants. A budget helps manage the way money will be spent.
- Another use of income is charitable giving, which can help lower one's taxes, help others in need, and make people feel better about themselves through the act of giving.
- An important use of income is through saving and investing—to grow a person's money for life events such as college savings, buying a new home, or retirement.
- Credit is a system that lets a buyer take
 possession of something now and pay for it
 in the future, usually with an interest charge.
 People should be careful to not overuse credit,
 as it can put them in burdensome debt.

Activities for Learning

Reviewing People, Places, and Things



Match the following with the correct description that follows.

| scarcity | | |
|---------------------|--|--|
| traditional economy | | |
| globalization | | |
| GDP | | |

economist inflation investment market economy

- 1. a measure of the total value of the final goods and services produced in a country in a year
- 2. a continual increase in the price of goods and services
- money spent on something with the goal of making a profit
- 4. exists when people and societies try to satisfy unlimited wants with limited resources
- one who seeks to understand the way societies address the issue of scarcity and allocation of resources
- 6. an economic system where decisions are made at an individual, rather than a government, level
- 7. the development of an increasingly worldwide economy
- an economic system based on agriculture, bartering, and decisions that are made on longheld customs and beliefs

Understanding the Facts



- 1. What is the study of economics called at the smallest level? The largest level?
- 2. In a market economy, what are the two factors that influence the price of a good or service?
- 3. What are the three types of economic systems discussed in this chapter?
- 4. Which North Carolina industry employs one in six of the state's manufacturing workers?
- 5. What product is grown in seventy of North Carolina's one hundred counties?

- 6. Which North Carolina city is home to one of the largest furniture markets in the world?
- 7. What are the advantages of no-till farming?
- 8. How has immigration both helped and hurt North Carolina's economy?
- 9. What does inflation cause?
- 10. What are four types of investments?
- 11. What is significant about a person's credit score?
- 12. How can an individual's poor financial decisions affect the entire economy?

Developing Critical Thinking



What factors have led to a decline in North Carolina's "Big Three" industries? What other industries are helping to offset that decline? Can you suggest other industries that might help even more?

Exploring North Carolina on the Internet



Read the following Internet article: www. charlottemotorspeedway.com/fans/news/governor-proclaims-may-motorsports-month-charlotte-motor-speedway-recognized-for-estimated-230-million-impact-200-jobs-may-races-bring-region.html. According to the article, how many jobs did the May 2014 races at the Charlotte Motor Speedway bring to the region? What is the annual impact of motorsports racing statewide?

Writing across the Curriculum



Write a one-page letter to North Carolina's governor highlighting a particular business or industry you believe should be encouraged to relocate to North Carolina. Make sure you include three ways you believe that business or industry can help North Carolina's economy. Add ideas for the governor about how to entice the business or industry to move here and help grow North Carolina's economy.