Chapter 8

Eee! Economics, Economic Systems, and Economic Policy

PLEASE NOTE: This book is currently in draft form; material is not final.

In this chapter, you will learn about:

- Different economic systems
- Supply and demand, and markets
- GDP: Measuring the economy
- Government and the economy
- Recessions and depressions

It's difficult to separate economics from politics, because the two are so interconnected. Most elections turn out to be referenda on the state of the economy (if the economy is strong, incumbents do well. If it's not, they don't). Political choices made by governments can have a big impact on the economy as well. Note that in this chapter, we again talk about different economic and political systems, because it doesn't make sense to talk about one without talking about the other.

8.1 Different Economic Systems

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LEARNING OBJECTIVES

1. Know the difference between capitalism, socialism, communism and fascism.
2. Understand how market-based and planning-based economies work.

Our basic economic system, as you probably know, is called capitalism. Capitalism means private ownership of productive resources, with a reliance on markets to decide what gets produced and how much it will cost. So, you can start and own a business, and consumers will decide if they want your business around. Markets let consumers and business owners vote with their dollars, euros or yen on what will be for sale, what the price will be, and which firms survive to produce another day. As we'll see, markets are very good at some things and perhaps not so good at others.

The alternative to market-based economic decision-making is some kind of government-based model. Government would decide, on behalf of people, what will be produced and how much each item will cost. As with market-based systems, government-based systems have their strengths and weaknesses. As a society, in the United States we have largely opted for a market-based approach, but not always.

Take a step back to the isms we talked about in chapter three, and think about them with an eye to how they make economic decisions, and what the advantages and disadvantages of each system is:

- **Capitalism**[1]: Private ownership of productive resources, with decisions made largely by consumers and businesses deciding on their own what to produce and what to buy. Remember that capitalism is part of what we call **classical liberalism**[2]—a system that relies on open elections and on markets. Generally speaking, capitalism is more efficient and

1. An economic system that allows private ownership of productive resources, and makes production and pricing decisions via markets.
2. An economic and political system that relies on democratic participation for political decisions and on markets for economic decisions.

less equalitarian in terms of who gets what. It produces more wealth, but can distribute it somewhat unevenly.

- **Socialism**[3]: Government ownership of productive resources. Public agencies decide what will be produced and what it will cost. These agencies could be subject to political control through elections; they also could simply be imposed on consumers by the state. Socialism doesn't necessarily imply one kind of political system over another. Socialism is generally less efficient but more equalitarian. Everybody gets something, but everybody may not get as much. To some extent, this is because a socialist system may be more focused on providing jobs for people than it is on providing goods and services.
- **Communism**[4]: Government ownership of productive resources, and a one-party state to enforce decisions. The level of public ownership is usually higher than in socialism. It is even less efficient and even more equalitarian (although under communism, some folks appear to be more equal than others. Dictators and high party officials usually appear to live better than do common citizens).
- **Fascism**[5]: Fascism claims to be capitalist, but as the state is not democratic, there's little popular control over anything. The state (usually, some dictator or group of dictators) tends to reward its friends and punish its enemies, which leads both to oppression and an inefficient economy. (The firm that kicks back the most money to the government is the firm that survives and makes a profit, but it isn't very often the firm that produces the best products at the lowest price.) Both inefficient and unequal, this seems to represent the worst of all possible worlds.

The world has tended toward capitalism in the last 30 years. With the collapse of the Soviet Union, and the opening of China's economy, only North Korea and Cuba remain as communist states. And Cuba seems to be slowly edging rightward. That means more economies operated via markets.

Markets vs. Planning

A **market**[6] is all the people and businesses involved in the production, distribution and consumption of any good or service. Markets are neither all bad nor all good. When the U.S. economy is doing well, you will hear how wonderful free markets are, like some fairy tale in which everyone really does live happily ever after. Conversely, when the economy is not doing well, you will hear how the market system doesn't really doesn't work, and that socialism, after all, is the only answer.

3. An economic system that uses central planning and public ownership of productive resources to decide who will produce what.
4. An economic and political system that uses socialism to make production decisions and a one-party state to make political decisions.
5. An economic and political system that is not democratic, punishes its enemies and rewards its friends.
6. All the people and businesses involved in the production, distribution and consumption of any good or service.

Realistically, neither of these viewpoints is 100 percent true. Every system has its share of strengths and weaknesses, and each represents trade-offs in the creation and distribution of wealth.

As we've already noted, market-based systems tend to be more productive—more goods for sale, higher quality and better prices. Planned systems have a hard time anticipating what the public will want, and so tend to produce fewer goods of worse quality, and consequently generate less overall wealth for society. As was noted in the days of the old Soviet Union in the 1970s, it was –60 degrees in Leningrad in February, and you still couldn't get a cold Coke, because the Soviet-era refrigerators were so bad. That might be a bit of an exaggeration, but in the old communist economies, consumer goods were of poor quality and often in short supply. For example, in Poland in the 1980s, when it was still communist, the price of bread was regulated. Limiting the price of bread meant that even the state-run bakeries couldn't supply more bread because they couldn't raise the price to buy more flour. Meanwhile, the price of cake wasn't regulated, and the bakeries always had lots of cake.

Hard-core socialist systems don't always reward hard work and initiative. In the early 1990s, I visited a friend in Bratislava, the capital of Slovakia, which broke away from the Czech Republic after the fall of the Berlin Wall in 1989. His business required him to have a fax machine in his apartment, but he couldn't get the fax to work. He called the state telephone company, which sent three guys out to look at his fax machine. They told him it was broken, and offered to sell him a new one for about $600 (a lot of money for a fax machine, then and now). The fax machine wasn't broken; in fact, it worked fine on his neighbor's phone line. The problem was clearly in his phone line, but the repairmen weren't motivated to go after that. After the "repairmen" left, my friend turned to me and said, "This is the legacy of 40 years of communism. These people don't know how to work." But it was in Bratislava that we stumbled across the monument to the victory of the west in the Cold War: Coming around a corner, we came square upon on a large K-mart, with a Pespi logo painted on its side. "You see," I told my friend, "there it is. We won."

It was in part the west's ability to produce more stuff of higher quality and better cost that enabled it to wade through 50 years of the Cold War and come out ahead. And that ability largely stemmed from its reliance on markets.

Market systems aren't perfect when it comes to predicting demand, either. But if one firm produces more jeans than consumers want at that time, the firm (and its employees) bear the cost of that decision, as opposed to the whole society. And because most firms know that, they tend to be more careful about how much inventory to produce. Badly run firms go out of business or are acquired; well-run firms prosper and, hopefully, share that success with their employees and customers.

Conversely, however, planned systems can move resources in a way that means there will be less abject poverty. Cuba, for all its problems, has better basic health care, higher literacy rates, and less homelessness than does the United States. On the other hand, it would be much harder for you to go into business for yourself in Havana than it would in Hartford or Hawaii. (Sweden, which has much fewer natural advantages than Cuba, but a market-based economy, has an economy nine times the size of Cuba's.) So while socialist economies have less disparity of wealth, capitalist societies tend to be richer overall. So socialist economies have a higher floor, and capitalist economies have a higher ceiling.

Capitalist or Socialist?

Finding a balance between the higher floor and the higher ceiling remains the tricky part of economic policy. Increasingly, the world's nations rely on markets for economic decision making, even a self-proclaimed communist nation such as China. I've heard people say of China, "Don't they know they're communist?" Having spent some time there, I think they know they're not. Officially, China's economic description is described as "Chinese socialism with characteristics of market capitalism," or, more recently, "market capitalism with characteristics of Chinese socialism." Perhaps it's an evolutionary process.

China is still ruled by what I like to call the not-very-Communist Party (or the Kaching! Dynasty), because while they are not very democratic, it is possible to start and own a business. From the time party reformer Deng Xiao Ping (the successor to Chairman Mao) declared "It is glorious to be rich," China has been grinding its way toward building a market-oriented economy. Many firms are still state-owned, but many are not. That division between the private sector and the state is likely to drive change in China, as private firms will someday increasingly question why they need an overwhelming, unchecked state telling them what to do. So one of China's great challenges is how to reconcile the unchecked power of the Communist Party with the growing demands of the private sector. The party's legitimacy increasingly rests on its ability to provide rising standards of living for the nation's 1.5 billion people. That's a tough job under the best of circumstances; as every nation realizes at the end of a boom, nothing grows forever (except maybe people's expectations). While China's economic growth rates have been strong for more than a decade, when you're starting from zero, you have nowhere to go but up. That kind of growth simply won't last forever.

China isn't really communist, nonetheless, and the United States isn't 100 percent capitalist. Most nations have what is called a **mixed economy**[7]—a blend of private and public enterprises. Even in the United States, while most businesses are privately owned, we have a number of publicly owned enterprises, from the U.S. Postal Service to public hospitals, water and sewer districts, and public power companies. But most of the economy depends on markets.

Figure 8.1

Chart TK: A diagram placing major nations of the world on the spectrum between socialism and capitalism.

KEY TAKEAWAYS

- Capitalism is an economic system that relies on markets.
- Socialism and communist rely on government planning.
- Most of the world's economies are a mix of the two, with some decisions made by private firms and consumers in markets, but some decisions made by government.

EXERCISES

1. Identify some private firms near where you live.
2. Identify some government-run firms. What would it mean for them to be privatized?
3. Which countries in the world are still ostensibly communist?

7. An economic system that features elements of both socialism and capitalism.

8.2 Basic Economics

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LEARNING OBJECTIVES

1. Understand the basics of a market-driven economy.
2. Understand the laws of supply and demand.
3. Understand different kinds of markets.

Now that we've established the importance of markets in understanding society, let's learn something about how markets work. First, some basic econ. Economics is another subject that confuses some people, and it shouldn't. In fact, most of it turns out to be common sense. People respond fairly predictably when it comes to money, and that's true for both consumers and businesses. And if you understand the laws of supply and demand, you understand most of what you need to know about economics. And if you understand something about how our economy works, it should be easier to understand how government affects the economy.

First, the **law of supply**[8]: **The higher the price, the more suppliers want to sell.** If the price of iPods goes up, Apple ships more units. Why? Because higher prices mean a supplier can cover the cost of added production and still make a profit. If the price falls, they ship fewer units.

Second, the **law of demand**[9]: **At higher prices, consumers want to buy less of an item, and at lower prices, they tend to want to buy more.** If the price of downloads for an iPod go up, you buy less; if they fall, you may buy more.

Obviously, you can't think about one law without thinking about the other. If demand rises for a product—consumers want more of it—that tends to bid up the price. More suppliers will enter that market, increasing supply, which eventually will drive down the price. If demand falls, suppliers will leave the market, supplying less of the good in question. (Suppliers *will not* raise the price in the face of falling demand, hoping to make up the difference. Remember the law of demand: Higher prices would simply drive demand down even further.)

8. The higher the price, the more suppliers want to tell, generally speaking, and vice versa.
9. The higher the price, the less consumers want to buy, generally speaking, and vice versa.

A lot of other factors can influence supply and demand (such as people's level of income, the price of inputs for suppliers, and the availability of substitutes for consumers. Taxes and subsidies also can influence supply and demand). But most of what happens in the economic world comes back to simple supply and demand.

Why this matters is because we live—and much of the world lives—in a market-driven economy. To varying degrees, most nations on earth rely on markets to make decisions about prices and production.

How Markets Work

So how are markets supposed to work? First, let's remember what a **market**[10] is: A market is the collection of buyers and sellers for a given product. So when we talk about markets, we're talking about all the people involved in the production, buying and selling of any particular product, from artichokes to Zambonis. When we talk about markets, then, we're not necessarily talking about a particular place. We're talking about a lot of places and a lot of people, usually scattered all over the world.

A market has a demand side—the buyers—and a supply side—the sellers. Buyers and sellers seek each other out to improve their welfare. Markets don't need to be organized; they just happen. At the right price, almost anything is available.A friend of mine from the gym once decided he wanted to get bigger and so set off in search of anabolic steroids (which will make you bigger sometime before they kill you). He found, for a price, all manner of drugs, people willing to do things not normally regarded as legal, and even weapons such as Uzi submachine guns, but, fortunately, didn't find anyone willing to sell him 'roids. If there's a demand for a product, sellers will try to meet that demand. As the demand for fuel-efficient vehicles grows with rising gasoline prices, automakers are more willing to supply them, such as hybrid vehicles. In the last decade, for example, sales of Toyota's Prius soared while sales of gas-guzzling Hummers plummeted. (Eventually, General Motors stopped producing Hummers altogether and started producing the all-electric Volt.)

By definition, buyers and sellers will reach an agreement on price. The price will be one that lets suppliers make a profit but isn't more than buyers are willing to pay. For this reason, we say that markets tend to self-regulate. If demand is less than output, or exceeds output, the market will respond by changes in price and/or quantity supplied. Markets for this reason typically don't require outside organization. As we'll see, they do, however, sometimes require oversight to ensure that everyone is playing fair. (Not everyone agrees with that idea, and you will have to decide whether you think that's true.)

10. All the people and businesses involved in the production, distribution and consumption of any good or service.

Some people have a rather high degree of faith in markets; other people think they're good at some things but not without their challenges. (And some people argue that markets simply have too many problems; at the moment, those folks aren't winning the argument.) For example, markets work when there's real competition. If there isn't real competition, it's not much of a market. Despite what everyone says about free enterprise, firms tend to want to limit competition, because that means higher prices. For example, in the 1930s, U.S. airlines (and also the trucking industry) went to the government and sought regulation as way of limiting "ruinous" competition—having to compete on price over what is basically a commodity—airline seats—meant that profit margins were lower. As we will discuss below, that led to 40 years of no price competition in the airline industry.

In a true market, no one sets the price alone. Prices are determined by 1) the costs of production and 2) the demand for the product [remember the laws of supply and demand]. In some countries and in some periods of our history, we have attempted to interfere with markets through price controls: arbitrarily setting the price of goods to ensure that no one has to pay too much. This usually doesn't work very well. Price controls distort the functioning of a market, typically limiting supply. Remember, according to the law of supply, at a given price, sellers will only supply so much of a good. But the higher price, the more suppliers want to sell, so a lid on prices necessarily means suppliers will only want to sell so much. Selling more means selling at a loss, and nobody does that for very long. Price controls, such as those imposed in this country during World War II, mean that supply will be limited. That meant that people also had to be issued ration cards so that they could get their share of scarce foodstuffs such as meat. Ending rationing would have meant higher prices, but it also would have meant more meat for sale.

Different Kinds of Markets

There are different kinds of markets—different kinds of competition—throughout the economy. Not every market for every product operates the same way.

Figure 8.2 *Chart TK: Different kinds of markets, with examples*

Before we talk about different kinds of competition, here are a couple of concepts that are useful to understanding the nature of competition:

- **Market power**[11]: this is the ability to set prices. If a firm has market power, it can set prices higher than the normal price (the equilibrium point, in economic jargon—the point where supply meets demand) that would be dictated by normal forces of supply and demand. A firm that has no market power is a price-taker—they get whatever price the

11. The ability to set prices higher than they would be given perfect competition.

market is offering. If a firm has market power, however, prices are higher than they should be because there isn't sufficient competition.

- **Barriers to entry**[12]: How easy or difficult is it to break into a business? If an industry has high capital costs (it would be very expensive to start building automobiles from scratch), or requires substantial education and skills, it has higher barriers to entry. The business of espresso stands has relatively low barriers to entry. A radiation technology clinic would have high barriers to entry. If, in a given market, there are high barriers to entry, the market may not work as efficiently as we might hope, because, once again, there is less competition.

With that in mind, consider the different kinds of competition that we might find in the economy:

- **Pure Competition**[13]: Pure competition is best described as featuring many firms, none too big, and no firm has market power. These firms are price-takers. Whatever price the market offers is the price the supplier gets. Farms are probably the best example—lots of farms, a wide-open market, and no one farm can likely set the price for any commodity. This is somewhat typical of commodity markets in general—markets where the product doesn't vary greatly from batch to batch or load to load. Everything from corn to rice to oil to iron ore to coffee beans is, to some extent, a commodity market.
- **Monopolistic competition**[14]: Many firms; low to high barriers to entry; limited market power. This describes a lot of businesses, from accountants to hair salons to restaurants to attorneys. Firms try to distinguish their products and services as different from all their competitors', which allows them to charge slightly higher prices. Hair salons, for example, target different market segments: From uptown, high-end salons, which may charge very high prices, to a hair factory such as SuperCuts, which charges lower prices. Although both kinds of salons cut hair, each offers a slightly different level and type of service and product.
- **Oligopoloy**[15]: Few firms; high barriers to entry; limited price competition. This would describe the automobile industry, for example. (A duopoly has two firms, such as Boeing and Airbus.) Starting an automobile company or any heavy industrial firm requires a lot of money, equipment and technical expertise, so that not many people are going to try this from scratch. As a result, there's less competition and prices are higher than they might be otherwise. Before foreign car manufacturers began to enter the U.S. market in the 1960s and 1970s, U.S. car prices became somewhat high.

12. The ability of anyone to enter a given business. High barriers to entry mean that the industry requires substantial capital, equipment and/or expertise to get into that business.
13. A market where there are many firms, low barriers to entry, and no market power.
14. A market featuring many firms, varying barriers to entry, and limited market power.
15. A market featuring few firms, high barriers to entry, and limited market power.

- **Monopoly**[16]: One firm. Monopolies happen for a variety of reasons: a firm has a technological advantage that no one is able to replicate; government bars other firms from competing in that market (fairly rare); a firm puts all of its competitors out of business (this can and has happened); or the market is best served by a single firm (a “natural” monopoly).

Usually, when there’s only one firm, government steps in with some level of regulation, attempting to keep the one firm from charging monopoly prices (prices higher than the market would otherwise allow). In the U.S., the government uses anti-trust regulation to keep any single firm from dominating its market, so as to preserve some minimum of competition.

In the case of a **natural monopoly**[17], for some services it may be better to have only firm providing that service. This tends to be true for services such as water, sewer, electricity and garbage collection (though not everyone agrees on this). It would not be profitable for a competing firm to build a second set of water, sewer and electric lines through your neighborhood. Consequently, these natural monopolies usually are regulated by the government—in the case of the United States, usually at the state level. This prevents the firms from charging whatever prices they want, but tends to also mean the state regulators give the service provider some minimum level of profit. It’s an admittedly imperfect system. These utility firms aren’t always as efficient as they might be, nor are regulators perfect at determining when a rate hike is or isn’t justified.

KEY TAKEAWAYS

- The law of demand: The higher the price, the less consumers want to buy.
- The law of supply: The higher the price, the more suppliers want to sell.
- A market is all of the people involved in producing, selling and buying a particular good or service.
- There are several different kinds of markets, each featuring a different level of competition.

16. A market where this only one supplier.
17. A market where it appears that consumers will be most efficiently served by one firm.

EXERCISES

1. The price of lattes as the campus coffee stand goes up. How are people likely to respond?
2. Rising demand for iPads bids the price up. How will other firms respond to this change in prices?
3. How is monopolistic competition different from a monopoly?

8.3 The Other Side of Markets

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LEARNING OBJECTIVES

1. Understand market imperfections
2. Understand market failures
3. Understand externalities

Markets are very useful, even though they don't always work the way they're supposed to. As we're about to see, that can have a cost for everyone. As we live in a free-market economy, in which citizens are allowed to make their own economic choices, we presume that competition is an open free for all, and the market—in the form of businesses and consumers—decides what gets made and who buys how much at what price. As with most things in economics, that's true, to a point.

So we might always ask, how well does any given market function? Classical economic theory says that markets are perfectly efficient because consumers and businesses simply vote with their dollars, and the best firms and the best products win out. Consumers, meanwhile, only spend their money where they perceive they are getting value for it.

But how can we know if a market is efficient as theory suggests it will be? One immediate problem is that people who worship at the temple of the market assume that everyone has perfect information: Consumers and businesses know everything they need to know to make rational decisions. Think about all the dumb things you've ever done with your money, and that pretty quickly should appear to be a really big assumption.

Market Imperfections

Markets are very good at making product and pricing decisions. People do vote with their dollars, and the market eventually responds. But they are not perfect. First, unlike the theoretical markets of free-market dreams, markets are not frictionless—markets face **transaction costs**[18]. Transaction costs are the costs of negotiating and enforcing contracts. Information held by buyers and sellers is not perfect. Although buyers and sellers do find each other, that's not without cost. Businesses have the costs of advertising and marketing; consumers have the costs of shopping for the right product at the right price. (Something like e-Bay works in part because uniting buyers and sellers in once place—the internet—lowers transaction costs.) So, for example, you're usually at a disadvantage at a car lot. The dealer or his representative knows what the car really cost, and what might be wrong with it. The sales representative also has been trained in price negotiation, or at least has experience at it. You, on the other hand, might be very good at your job, but may be inexperienced at price negotiation and may not know what the car is worth. And you certainly don't know that it needs a new transmission. So markets aren't always a level playing field.

Markets don't always make the best choices, despite their reputation for doing so. Consider **Qwerty economics**[19]. Qwerty, you may recognize, is the first five letters on the upper left side of the keyboard you are probably now using. If you stop and think about this keyboard, it's fairly awkward. The letters you use the most, such as A and S, are under your weaker fingers. This was by design. This keyboard was created in the 1800s when typewriters became commonplace. With a manual typewriter, if you type fast enough, you could jam the keys together and have to stop and separate them. This was a problem for rapid 19th century typists, so a keyboard was designed to slow them down a bit and enable them to proceed at a good steady pace.

Then, in 1932, a University of Washington professor, Dr. August Dvorak, developed a new keyboard that was more ergonomically efficient. Typewriters had gotten mechanically better, and the invention of the electric typewriter meant you could type very fast if you were any good at it. A trained Dvorak typist can kick major bunny on the best Qwerty typist.

So why don't we all use the Dvorak keyboard? It's better, and we'd all probably like a keyboard that put the most commonly used letters under our strongest fingers. You can convert any late-model Windows computer to Dvorak with a few mouse clicks, and it shouldn't be too difficult to order a Dvorak keyboard for your computer.

But we don't change. The short-term cost of retraining an entire nation in typing outweighs the apparent long-term benefits. (I tried a French keyboard once while in Paris on business. French keyboards have the letters in different places. It's very difficult to type on a different keyboard once you've been trained to do one way.) Either way, that's a market decision, and the market hasn't made the best decision.

18. The costs of negotiating and enforcing contracts.

19. The way in which various factors lead markets to make less than the best decision.

Markets sometimes do that. The old Sony Betamax system was much superior to the VHS system, but the VHS system won out. Sony didn't license its platform to other manufacturers; the VHS patent holder did. So even though Betamax was better, VHS was much cheaper. Apple Macintosh computers were much superior to the early Windows machines, but as Apple (like Sony) didn't license its operating system to other suppliers, Windows-based PCs won out over Apples on price alone. In each case, greed won out over good business sense.

Market Failures

Imperfections are relatively minor concerns; they add costs to markets, but they don't keep markets from working. But markets face much bigger challenges than that. Some economists call these **market failures**[20], or cases where markets don't perform as well as we hope they will. (We should note that people with extreme faith in the power of markets don't admit that markets might not be perfect. In the eye of some very conservative economists, whatever happens with the market is what's supposed to happen. And if that means you suffer as result, well, it sucks to be you.)

First, markets have a tendency toward **imperfect competition**[21]. Remember that in perfect (pure) competition, no firm controls too much of the market, there are low barriers to entry (it's easy for somebody to get into that market and provide competition), and firms get whatever price the market is currently offering. Very few markets look like this in the real world. Commodities—raw materials, some agricultural goods, airline tickets—tend to operate this way. But even there, firms tend to try to differentiate their products so that they can charge a slightly higher price. (Giving us such puzzling products as "Eggland's Best," even though, for the most part, an egg is an egg. By claiming that their eggs are somehow better [they never really say why, and I can't seem to find Eggland on a map], they can charge a little more for their product. Grocery stores also sometimes charge more for eggs with different colored shells, even though there's really no difference beyond the way they look.) This is called monopolistic competition. Each firm tries to create its own monopoly by positioning its product or service as being slightly different from its competitor's offering. What matters here is that positioning your product away from the field gives you a little bit of market power—the ability to set prices. That usually means higher profits, and that's what most businesses want.

This is a condition that doesn't stop markets from functioning—lots of firms, selling similar products, each trying to carve out its own market niche. But what happens when some firms come to dominate a market? If we get down to just a few firms, we have what's called an oligopoly. As these firms dominate their markets, there is less competition and higher prices. Before the advent of foreign imports, U.S. auto firms were an oligopoly, and even now, there's a relatively small number of firms

20. When markets fail to produce the best outcome.

21. A situation where competition is limited by collusion or lack of competitive firms in the market.

worldwide that compete in the automobile industry. In the commercial jetliner business, two firms (a duopoly)—Boeing and Airbus—are the dominant players, and while they compete fiercely over this business, they mostly have the field to themselves for the moment.

Left to their own, many markets tend toward just one firm. One company manages to get an edge, and begins to either buy up or push out its competitors. This happens most often in businesses where there are high barriers to entry (it's either expensive [also called capital-intensive] or technologically challenging to get into the field). As we've already noted, it would be relatively simple for you to open a coffee stand, but it's not likely that you'll start manufacturing automobiles in your garage (and be successful at it). Only one firm means a monopoly, and monopolies usually mean higher prices and lower quality, because there isn't any competition to force that one surviving supplier to do a better job.

This happened in the United States in the late 1800s and early 1900s, when business leaders managed to assemble a series of "trusts," which controlled much of the nation's (and sometimes the world's) supply of everything from sugar to oil. For example, John D. Rockefeller, starting from scratch, built a behemoth known as Standard Oil, which at its peak controlled 95 percent of the world's known oil. He ran a better business than many of his competitors, but he also undersold competitors to put them out of business (and probably arranged for accidents for some who refused to go away quietly).

In the United States, government's response was to pass a series of anti-trust laws, making it illegal for one firm to control an entire industry and giving government the power to break up the trusts and preserve competition. So, for example, when AT&T (which had been broken up by the government in the 1980s) declared in 2011 that it would buy T-mobile, federal anti-trust regulators said "not so fast," and filed suit to block the acquisition on the grounds that it would limit competition in the cellular telephone business.

It's not entirely clear how well any of this works. For example, it took until 1924 to break up Standard Oil, by which point its control of the world's oil supplies had fallen to about 25 percent. How did that happen? High prices tend to attract more competitors; by charging monopoly prices, Standard Oil had already drilled the wells of its own demise. Similarly, the break-up of AT&T in the 1980s, when it was the world's biggest corporation and the nation's dominant phone company, became something of a moot point in a few years as cell phones and satellite communication began to end AT&T's dominance of local and long-distance telephone service.

The tendency toward imperfect competition takes other forms. As we've already noted, participants in markets frequently try to rig them by changing the rules, or by colluding with others. For example, at various times in our history, business has encouraged government to produce rules that limit competition. At other times, firms have secretly joined together to fix prices and avoid competition altogether. In the early 1960s, for example, suppliers of large generating equipment secretly agreed to stop competing (bid-rigging), so that prices would be higher for all firms involved. (Eventually, somebody noticed, lawsuits were filed, and fines were levied.) Firms also have tried to corner the market on some materials, making it difficult for other firms to compete. So although markets are supposed to be inherently efficient, and to generate whatever products are needed, markets may in fact need someone to enforce the rules of the market—to make sure that no one is cheating by finding ways to limit competition.

Markets also are cited for their failure to provide **social (or public) goods**[22]: Markets can't provide public goods such as traffic lights, because there's no way to make a profit off a traffic light. One could argue that roads and transportation infrastructure in general fall into this category, and probably police and fire protection as well. In economic-speak, social goods are said to be non-rival and non-exclusionary, in that consumption of them does not diminish their quantity and they can be used by anybody. That means it would be difficult for a private business to make money on them. Traffic controls such as stoplights are an example of a social good since they limit accidents, help manage the flow of traffic and can be used by anybody who is driving. And if I use a traffic signal, there isn't less of the traffic signal for you to use after me. The market won't provide traffic signals because there's no way to make them profitable for a private owner, so the only way to get them is gather up some money from everybody (taxes), pool those funds and build what needs to be built.

Markets also suffer from **unequal distribution of wealth**[23]: Because markets generate a lot of wealth but don't spread it around evenly, market economies can produce extremes of wealth and poverty. This generates problems for most societies. The rich get greedier, no surprise, and the poor get more envious of the rich. This often leads to more poverty, higher crime, and more social problems of all sorts. Plato and Aristotle wrote about this very problem 2,500 years ago, and not much has changed. Figuring out how to fix that, however, remains as difficult as ever, because if we make the distribution of wealth more equitable (more even), we likely also will make the economy less efficient and productive. Striking a balance, I think, is the hard part. Of course, not everyone agrees that this is a problem. Conservatives and libertarians would argue that if some people are poor, it's their own fault, and that they are more likely to become wealthy and successful if they get going and do something to improve themselves. As usual, the truth is probably somewhere in the middle. There are people who lift themselves up out of poverty,

22. Things such as traffic lights and public health systems that the market won't provide since there's no way to make a profit from them.

23. The tendency of markets to distribute much greater amounts of wealth to some people, and much less wealth to others.

and people who can't see their way to anything like that. And clearly some people start out ahead of the game. Your parents' income level is a pretty fair predictor of your income level. (And if you work enough jobs, you will inevitably meet someone who owes his or her position to the wealth they inherited. You will also meet people who are brilliant at business, and, in some sense, deserve what they have.) But what is certain is that poverty has a social cost that extends beyond the poor themselves. Poor parts of every country tend to have higher crime, poorer nutrition, shorter life spans, and generally less pleasant lives. The question, as always in politics, is what to do about that.

Another kind of market failure is **externalities**[24], which are the unintended consequences of economic activity. Externalities also are said to be the costs not paid for by the user of the resource. Pollution is the classic example of an externality, and the market may not in fact account for the real costs of pollution. So, a smoke stack from a factory, or all the air pollution created by automobiles and most other forms of transportation, does create a lot of jobs and wealth. No problem there. But the cost of the pollution in terms of health and the environment isn't paid for by the user of the resource, either you or me driving to work or school, or the people who own or work at the factory. That cost is left for society at large.

Nobody really wants to create pollution, yet the market by itself won't do much about it. Why not? In the example of pollution, we often face the **free-rider problem**[25]. If each of us owns a factory around a lake, and we're all dumping effluent into the lake, we will ruin it in a short period of time. So we'd all be better off not polluting the lake. But absent some outside influence, there's nothing to make any of us stop polluting the lake. One of us might decide to take steps to reduce the pollution we're dumping into the lake, but whoever does that bears the full cost of that and yet shares the reward with everybody else around the lake, making them, in effect, free riders on our good deed. Moreover, by taking on the cost of cleaning up our plant, we have added to our costs, making our product less competitive with firms that chose not to do the right thing.

Externalities can be both positive and negative. Negative externalities make something worse for somebody else. Positive externalities make something better. A positive externality might be a business that buys an old building, cleans it up and landscapes the outside. That would make neighboring properties worth more—a benefit to those landowners, and totally unintentional on the part of the business. Public education also produces positive externalities, since the people who are educated at public expense will be more productive than if they had not been educated. That generates economic benefits for the rest of society.

24. The unintended consequences of market activities. These can be either positive or negative. Negative externalities occur when the full cost of using a resource is not borne by the user, such as pollution.

25. A conundrum that leads firms and people to not do the right thing, because to do so would be to absorb all the cost of that action while sharing the benefits with everyone else.

KEY TAKEAWAYS

- Markets may not be capable of providing needed goods and services.
- Markets may not account for the full cost of using a resource.
- The free-rider problem discourages firms from doing the right thing on their own.

EXERCISES

1. Should government step in to deal with negative externalities? Are there costs and benefits, for example, for mandatory pollution controls.
2. What would be the costs and benefits of unequal distribution of wealth?
3. Think of some examples of public goods. Why doesn't the market provide these?

8.4 How Politics and Markets Intersect

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand arguments for and against government intervention in markets.
2. Understand why businesses seek protection from competition through government action.

All of this leaves us with a couple of things to think about. First, to what extent should government intervene in the economy? Second, presuming we intend to continue to use markets to determine what to produce, etc., how can we keep government from limiting competition when it does intervene? This second question may seem less obvious, but what history tells us is that markets seek intervention nearly as often as government seeks to intervene.

The Case for Leaving Markets Alone

Some people say that, left alone, the market will eventually sort all of its problems out. The **public choice**[26] school of thought points out that government doesn't always make good choices, and that people in general are a better judge of what to do with their money. Conservatives, public choice advocates, as well as libertarians, think government should be smaller, do less, tax less, and spend less money. Libertarians don't see much of a role for government except for national defense and police protection.

Part of the argument here is that people will do what they learn to do, so if you bail them out from stupid decisions, they'll keep making stupid decisions because there's no consequence to their actions. So people who, say, don't save for retirement, will just have to suffer. Others, observing that suffering, will be motivated to save more and sooner.

26. A school of economic thought that says that government officials are inherently inefficient at economic decision making, because they are too focused on re-election. It also says that government spending is generally too high.

Public choice theory in particular says that government's economic decisions are mostly aimed at making things better for government officials, rather than for society as a whole, such as helping officials get re-elected. A fair amount of research has shown that presidents, for example, take steps to pump up the economy just before elections (it also shows that they don't really have much success at moving the economy forward that quickly). And the steps that government might take—raising government spending to boost demand—might lead to inflation and higher budget deficits down the road.

However government intervenes, whether by regulation, taxation or subsidies, makes markets less efficient—it raises costs, which fall on businesses and consumers. Government is particularly bad at picking winners and losers—60 years of communism showed us just how bad government can be at producing goods and services. Taken to its extreme, government control of the economy limits innovation, raises prices or leaves goods in short supply, and limits incentives for people to work harder.

Why aren't governments as efficient as markets? Governments simply respond to different signals than do markets. Whereas markets operate largely on the basis of supply and demand, governments by nature have to care about who has a job and whether people have enough to eat. That makes them egalitarian, but it doesn't always make them very efficient. During the 1980s oil boom years in Alaska, state government, hoping to diversify the state's energy-dependent economy, spent a lot of money on small business development projects. That included, for example, an entrepreneur who was trying to develop a dog-powered clothes dryer. The state apparently spent so much money (before oil prices tumbled in the late 1980s) that a popular bumper sticker in Anchorage read "Please, God, just once more. We won't piss it away this time."

As usual, there's some truth to all of this. Many people will probably be more careful about things if government isn't there to bail them out. Moreover, using government to plan economic outcomes, including production and pricing decisions, has a very poor track record.

The Case for Intervention

Government's decisions are far from perfect, and probably never will be perfect for everybody. And that's part of the problem with arguing against **government intervention**[27]. Few decisions, including non-decisions, leave everybody better off. And the people who didn't think to save for retirement have a cost to society as well as to themselves. For public choice theory to work, people have to be rational—always making the right decision and acting in their own best interests.

27. Government taking a role in helping to determine economic outcomes.

That's a big assumption, and you only have to look around (or in the mirror) to know that we're all rational only part of the time.

And while conservatives may argue that the market will indeed sort things out in the long run, waiting for that to happen has costs as well, in terms of human misery. Odds are, your life isn't better if your neighbor's is worse, or we wouldn't find that the poorer parts of most places on earth have higher rates of crime, drug and alcohol abuse, and people who just aren't living happy lives. You can, for example, pretty much correlate K–12 test scores with income levels; children from wealthier neighborhoods do better in school.

The people who most famously wrote in favor of the greatest reliance on unfettered markets—Ludwig von Mises, Friedrich Hayek, Ayn Rand and Milton Friedman, for example—wrote at a time when the alternative to a market economy appeared to be communism. Communism didn't work that well, although, frankly, its political problems (the unchecked power of the state) probably outweighed its economic problems (substandard goods in short supply, and a lack of economic freedom). But is an unfettered market or an all-powerful state the only options available? Perhaps not.

The kind of minimalist government that some folks still call for was also tried, in the United States in the 1800s. Government then, particularly in the post-Civil War era, didn't do much with regard to the economy. There were no child labor laws, no minimum wage, no workplace safety standards, no overtime, no unemployment insurance, no bank deposit insurance—nothing except the market. The courts largely barred either states or the federal government from regulating anything to do with the economy. As a consequence, there was no social safety net, and if the economy went south, people suffered. In the Depression of 1893, some people simply starved to death. When I end up arguing with libertarian students, which I do, I usually say "we tried a libertarian government, and it didn't work so well."

So let's further consider the case for intervention. The argument for the government taking an active role in the economy has a number of reasons behind it. First, the playing field isn't very even in a capitalist economy. Everybody doesn't start from the same point on the track. If you don't have any money or any opportunity to begin with, such freedom of choice is small consolation. And completely unregulated markets tend to lead to great concentrations of wealth in very few hands, which often means some citizens become much more equal than others. If you live in a state with initiatives, you have already seen wealthy interest groups use the initiative process to get state law changed to benefit them. Consequently, some people favor at least some limited government intervention to address market failures and externalities.

Governments can intervene in market failures through taxes to penalize unwanted activities; through subsidies (such as tax credits) to encourage activity such as pollution abatement; through price regulation; and through regulation of business practices such as safety regulations, anti-pollution laws and anti-trust enforcement. Each of these has costs and benefits, and there will always be argument as to which way the scales tip on every government action.

The argument for doing this is that the market by itself won't sort out pollution, poverty and the distribution of power. Markets by themselves don't account for the cost of environmental damage, traffic, rising home prices and loss of open space. They tend to concentrate wealth and power, posing challenges to effectively functioning democratic institutions. But what about government's storied inability to make good decisions? One might argue that we shouldn't let the perfect be the enemy of the good. Government intervention won't ever be perfect, but if it can be better than non-intervention, its lack of perfection isn't a reason not to intervene.

To my mind, unfettered markets make no more sense than an unfettered state. Again, you'll have to decide what you think this is right. Do the benefits of government involvement outweigh the costs, or do the costs overwhelm the benefits? You may feel differently than I do, and that's OK. You get to make up your own mind on this, and you should understand that there are rational arguments to be made both for intervention and for not intervening. Everything the government does or doesn't do with regard to the economy imposes costs and bestows benefits upon different groups of people in every country. My hope is that whatever you decide, you will have some idea about why you believe that philosophy, and that you understand what it means.

Government to the Rescue?

As much as some business people (and many conservatives) like to complain about government meddling in the economy, a lot of that meddling comes at the request of business. Adam Smith, the father of modern capitalism, recognized this in one of the more overlooked sections of The Wealth of Nations: Left to themselves, businesses will try to use government to rig markets and limit competition. Markets aren't immune from politics, and a lot of politics is about economics. So much, in fact, that in my mind, it looks like this:

My Second Law of Political Economy: Politics is economic competition, carried on by other means.

How is this true? Well, most pieces of legislation passed by national and local legislatures have some economic impact. Some largely social/moral issues—such as abortion or gay marriage—aren't really economic issues, but everything dealing with taxes, spending, regulation, monetary policy and economic development has a big economic impact. Moreover, in most nations, firms in every sector of the economy actively seek legislation that helps them and hurts competitors. Such laws are a form of **regulation**[28]. For example, licensing requirements probably do protect consumers against bad business practices, but they also restrict the supply of doctors and lawyers and thereby raise the price of those services. This leads to:

My Fourth Law of Political Economy: Everyone favors competition, except when it applies to them.Since you might be wondering, the First Law of Political Economy is the decision will be made in the direction of the greatest value. Usually, that's money. So, if we look at lots of government decisions, we tend to find that they make those decisions with an eye to what will generate or protect the most wealth. Particularly at the local level, for example, cities are more likely to block development of apartment complexes because they will drive down the value of single-family homes in the same neighborhood. And the homeowners vote more often than the renters do. If you think back to our discussion of interest groups, you may remember the Fourth Law: Economic interests will be politically dominant to the extent that they are economically dominant. So, firms that make a lot of money and employ a lot of people tend to have more political clout than those who don't. (See below.) The Fifth Law is: All life is politics. In other words, wherever you go, it's who you know that matters.

For example, a few years back more than a dozen state attorneys general joined in a "consumer" lawsuit against Microsoft, alleging anti-competitive practices. Every state had one thing in common: Each was home to one of Microsoft's competitors. (I've never seen a consumer lawsuit more devoid of consumers.)

So the intersection between government and business is substantial. Economist Robert A. Leone recognized this in his Iron Law of Public Policy: Every government action creates winners and losers in the marketplace. Smart business people know this, and act accordingly. As we'll see more clearly when we talk specifically about regulation, businesses often seek regulation to limit competition and keep prices higher than they would be without it.

KEY TAKEAWAYS

- Government intervention in the economy imposes both costs and benefits.
- Businesses often seek government intervention to limit competition and raise prices.

28. Government intervention that prescribes economic outcomes, or requires, limits or prohibits some kinds of economic behavior and/or activity.

EXERCISES

1. What are the costs and benefits of speed limits? What would be the alternative?
2. Think of something you think government should be doing in the economy, or something you think it shouldn’t be doing. What would be the costs and benefits of that change in government policy?

8.5 Measuring the Economy: GDP and Inflation

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand gross domestic product and other measures of national wealth.
2. Understand the causes and effects of inflation.

Whether we decide to intervene in the economy usually has something to do with how it's performing. In order to tell how the economy is performing, we have to be able to measure it. In broadest terms, we measure the economy by **Gross Domestic Product (GDP)**[29]. That's the total of all goods and services produced in any nation's economy. It's only part of the story, but it's a big part.

For example, the United States, at around $14 trillion, has the world's biggest economy measured by GDP. China is No. 2 at a little more than $5 trillion. But if we divide that by the number of people living in each country—giving us **per capita GDP**[30]—the richest country on earth is tiny Luxembourg, at $118,000 per person. The U.S. ranks no better than ninth (depending on whose data you use), while China slips all the way to 94th.

Then again, we might think about what things cost in each country. If the cost of living is cheaper in, say, Iowa than it is in New York City, you don't need to make as much money to live comfortably. Economists call this concept **purchasing power parity (PPP)**[31], and if we apply that to GDP, the top three economies are the European Union, the United States, and China.

Another way we might judge the economy is by the **Gini coefficient**[32], a statistical measurement named for its inventor, the early 20th century social scientist Corrado Gini. Gini's coefficient measures the dispersion of wealth, so that zero means everybody has the same wealth, with 1 meaning, in essence, one person has everything and nobody else has a dime. By the Gini coefficient, wealth is most evenly distributed in Sweden (0.23 Gini score), and most unevenly distributed in

29. The total of all goods and services produced in one (any) nation's economy.

30. GDP divided by the number of people in a country.

31. A measurement of GDP accounting for the relative prices of goods from one country to the next.

32. A measurement of the dispersion of wealth within a country: 0 means everybody has the same amount of wealth; 1 means one person has it all.

Namibia (0.72 Gini score). The United States' score is 0.45, better than most of South America but worse than all of Europe.

However it is measured, GDP gives a benchmark by which to tell how the economy is doing. If GDP shrinks for two consecutive quarters (six months), that's a recession, and you will live through more than one of those in your lifetime. More on that in a moment. About 70 of GDP is consumer spending, 10–20 percent is investment (business) spending, and 20–30 percent is government spending. **Real GDP**[33] is adjusted for inflation. Inflation is measured via the Consumer Price Index and a number of other indexes. More on that in a moment as well.

Figure 8.3

Charts TK: Nations of the world by GDP, PPP, per capita GDP, and by Gini coefficient.

GDP also allows us to compare how the economy is doing at different points in time. A "record" budget deficit may not be so remarkable if it's, in fact, a smaller percentage of the overall economy than was an earlier, apparently smaller deficit. It's always important in looking at current and past numbers to compare them to the size of the economy and the wages and prices of that time.

Inflation

Another factor in understanding the economy is inflation. **Inflation**[34] is a general rise in the level of prices. Since World War II, it has been a near constant feature of most economies around the world.

Inflation has three basic causes:

1. **Cost-push**[35]: If there's a shortage of goods or inputs for goods, prices will rise if demand remains constant. You've already seen this in your lifetimes with oil and gasoline. When supply is interrupted, say, by a storm that shuts down refineries on the Gulf Coast, supply falls and prices rise.
2. **Demand-pull**[36]: If demand exceeds supply, prices will rise. So, turning to gasoline once again, people drive more in the summer as the weather improves and folks go on vacation. So, typically gasoline prices will rise after Memorial Day and fall after Labor Day, when school resumes and the weather begins to get worse. High government spending in the late 1960s, when the economy was already doing well, may have contributed to inflation in the 1970s.

33. Gross domestic product adjusted for inflation. A way of judging whether the economy really is bigger or smaller than at any point in the past.

34. A general increase in the level of prices.

35. Inflation driven by a shortage of supply, such as oil.

36. Inflation driven by demand that is rising faster than supply can respond.

In both of these instances, markets will take care of the problem. Remember the law of supply: As prices rise, suppliers want to sell more of a good. The Arab Oil Embargo of the 1970s greatly restricted the supply of oil to the western world. Prices doubled and tripled in less than a decade. But higher prices made other sources of oil more economical to recover (such as the oil underneath the North Sea between Britain and Norway), and prices eventually came down. And don't forget the law of demand: As prices rise, consumers want less of a good. In the latest run-up in gas prices, consumers stopped buying gas-guzzling vehicles and began to demand more high-mileage alternatives. More people take the bus or carpool. So the market tends to sort this kind of inflation out.

3. Printing too much money: Governments can cause inflation if they print too much money. This happened in Germany in the 1920s, when inflation got so high that restaurants stopped printing menus because prices were rising throughout the day. In more recent times, Argentina and Zimbabwe have struggled through bouts of prolonged inflation, as their governments simply printed too much money. Printing too much money can let the government spend more, which puts more cash in circulation, which makes everyone feel richer, temporarily. But if we all suddenly had more cash, we'd likely spend some of it, in the process bidding up prices.

Inflation isn't usually good for an economy. It makes people feel somewhat helpless when they see prices rising all the time; it punishes savers, investors and lenders. Your savings account loses value as inflation increases; your investments also may be worth less. Lenders such as banks and other financial institutions see their loans lose value because they're being paid back with cheaper dollars or euros or yuan. Conversely, borrowers are helped by inflation because their loan payments tend to stay the same even as their incomes rise with inflation. (That's why banks began to offer adjustable rate mortgages—ARMS—for house loans. The rate can be adjusted up or down depending on inflation.) Inflation is especially hard on the poor and people on fixed incomes, because rising prices eat away at their purchasing power. Wealthier people may be able to shift their mix of investments to account for inflation (such as inflation-linked bonds). The poor don't tend to have investments (or they wouldn't be poor). Finally, inflation complicates business planning. So all in all, it's not a good thing.

Another thing to remember about inflation is that it can make things seem more expensive than they are. Remember the idea of purchasing power parity—what does something cost relative to the incomes of a particular time and place? So when we talk about the price of something, there's the money price, which is the nominal price, and the real price, which is the price accounting for inflation. We should always ask, what does a good or service cost today in constant dollars? The relative price is the price in terms of other goods and services. We also often consider the price adjusted for inflation, in order to tell if it's more expensive now or earlier. For example, $3 a gallon gasoline may seem very expensive, but when you account for inflation, gasoline was more expensive both in 1918 and in the early 1980s. Similarly, while *Avatar* is listed as the top grossing film of all time, if you account for inflation (and hence the difference in relative ticket prices), the clear winner is *Gone With the Wind*.

In the United States, we measure inflation by the **Consumer Price Index (CPI)**[37], and by the Producer Price Index (PPI). As their names imply, the CPI is a measurement of inflation for consumer goods, and the PPI measures the price businesses receive for their products. Both are measured by the federal Bureau of Labor Statistics. Researchers from the BLS survey prices around the country, using a "market-basket" approach—a hypothetical list of things consumers might normally buy. The CPI includes a national average and several regional averages, to account for differences in costs of things in different parts of the country. It's not bad measure, but because it is a laundry list of items, it's not perfect. For example, if the price of clothing is rising, and you're not buying any new clothes at the moment, the stated inflation rate is different from what you might be experiencing. The bureau also provides a "core" rate of inflation, subtracting out changes in the cost of food and energy. Those prices tend to be more volatile, experiencing wider swings in price over shorter periods of time. On the other hand, as everybody has to buy food and energy, the "core" rate may not be all that important.

Inflation doesn't normally occur during recessions, because people are spending less money, so there's less upward pressure on prices.The British economist A.W.H. Phillips suggested that there was a trade-off between inflation and unemployment, which became known as the Phillips Curve. Then some folks went out and tested inflation versus unemployment, to see if there was in fact a correlation. There was none. However, considering only these two statistics leaves out everything else that might be influencing either inflation or unemployment at the moment. Experience at least tells us that most of the time, if unemployment is high, we get less inflation, and if more people have jobs, prices may get pushed up. However, on occasion, a nation can experience inflation and a weak economy, which is called **stagflation**[38]. This is the worst of all possible worlds: You've lost your job, and prices are rising. This only seems to happen if the inflation is driven by cost-factors. So, in the U.S. in the mid- to late 1970s, a soft economy meant high unemployment and the Arab oil embargo caused inflation by driving up the price of oil. (Rising or falling energy prices affect nearly everything else, since our society is so energy dependent.) Economists even came up with a "misery index," combining numbers for inflation and unemployment.

37. The Consumer Price Index, a government measurement of price levels as experienced by a typical consumer.

38. High inflation and high unemployment occurring at the same time.

It's a particularly vexing problem for policy makers, because the usual fixes tend to make one or the other problem even worse. So, doing something to spur demand and raise employment levels may make the inflation worse; curbing demand to battle inflation will make the employment problem worse. In the long run, the market will sort out the inflation problem, because high prices will attract investment and eventually either more supply or alternatives to the high-priced goods. In the case of the U.S. in the 1970s, the answer was to raise interest rates to curb demand and crush inflation. That produced a very deep recession as well. As always, there were tradeoffs. The long-term solution to both problems is gains in productivity, but most people don't want to wait that long for an answer. More on that in a moment.

The opposite of inflation is **deflation**[39], which is when prices fall. This can be a good thing when it means prices are falling because firms' costs are falling. The price of many electronic goods, from calculators to computers to smart phones, has fallen over the last several decades, as the start-up costs have been covered and firms have become more efficient at producing them. On the other hand, if prices are falling because of falling consumer demand, that means firms are selling goods at a loss. If firms can't cover their costs, they go out of business, workers lose their jobs, and the whole economy takes a downward plunge. Few things scare economists and policy makers more than that kind of deflation.

KEY TAKEAWAYS

- The economy is measured by GDP, the total value of goods and services in an economy.
- Inflation can come from one of three sources. For the most part, inflation is bad for the economy.
- Stagflation is both inflation and recession, whereas deflation is falling rather than rising prices. Neither of these is good for the economy.

EXERCISES

1. Think of the last thing you purchased and how much you paid for it. Go to http://www.usinflationcalculator.com/ and see what it would have cost in the year you were born.
2. What causes stagflation? What kinds of things can solve it?

39. A general decrease in the level of prices.

8.6 Government and the Economy

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand why governments make economic policy.
2. Understand the importance of productivity.

Why would government want to get involved in the economy? Nearly every government—conservative or liberal, managed or market-driven—has the same objective: Creating the conditions whereby people can live materially satisfying lives. (As I explained to students in China once, people all over pretty much want the same things: Food, clothing, a roof over their heads, maybe some nice clothes to look pretty on the weekend.) Consequently, most governments typically have three goals in terms of economic management: full employment, price stability and economic growth. If citizens have jobs, they're happier; if prices are rising too fast, they're less happy. Growth allows these things to happen even as population grows, and also means higher standards of living. Growth sometimes gets a bad name, though it doesn't necessarily mean that the suburbs are sprawling across the forests, fields and farms. **Full employment**[40], meanwhile, doesn't mean zero unemployment. It means that everybody who wants a job has one. In practical terms, that means 3–4 percent unemployment, as some people will be between jobs and some people may be just taking a break. Price stability means a relatively low level of inflation, say, under 3 percent. And if the economy is doing well, the party in power gets the credit and gets to stay in office a while longer.

Economic growth[41] is an increase in the output of goods and services. It tends to mean more jobs and higher incomes for people, and also access to goods and services on which to spend that income. It's worth noting that there are in fact only two sources of economic growth: gains in population, and gains in productivity. Gains in population tend to mean an increase in demand, which drives up prices and encourages more supply. Firms hire more workers, who have more income to spend on themselves and their families. Gains in population, however, also generate externalities—more pollution, less open space, more traffic, higher housing prices (a great thing if you're selling a house, not such a good thing if you're buying one).

40. An employment rate in which everybody who wants a job has one.

41. An increase in the output of goods and services.

Aside from Chairman Mao in China after World War II, governments typically no longer actively encourage population growth as a matter of policy. Population tends to grow when times are better, as people can afford families, such as during the Baby Boom that followed the post-World War II economic expansion in the United States. In more recent times, however, in industrialized nations such as the U.S., Japan and Europe, birth rates have fallen. Whereas in agricultural societies more children can mean more farmhands, in industrial societies children are an expense. A couple of kids is good; a bunch can get kind of spendy.

Productivity

The key to economic growth is gains in **productivity**[42], and governments do try to actively encourage that. Productivity is output per worker. It's very important—you can track the ups and downs of the U.S. economy by watching what productivity is doing. Slow or no growth in productivity means lower profits for businesses, and when business profits are down, they hire fewer people and pay the people they have less money. Why is this so important? If a worker is more productive—produces more goods per hour worked—production costs fall and profits rise. Gains in productivity mean that you're producing a greater number of widgets with the same resources. That means higher profits, which usually means greater wealth for more people.

Gains in productivity come from better skills; better equipment and/or processes (including specialization of labor); finding new sources of natural resources; innovation (a change in the way resources are used); or eliminating waste. Steel plows, for example, greatly improved the productivity of agriculture by allowing the plowing of more land. (Before this, plows were usually made of wood, which meant they couldn't break up the ground of many kinds of soil to allow planting.) In another example, prices fell throughout the 1800s with the rise of the industrial revolution, despite gains in wealth and population (which usually drives up prices). More goods were produced by machine instead of by hand, so output increased even as prices fell.

Because there are limits to everything, and technological innovation is unpredictable and tends to plateau, improvements in productivity can't just be ordered up from Amazon.com. Productivity in the U.S. soared after World War II, but then flattened in the 1970s. Productivity turned up again in the 1990s, and the economy boomed, but that boom didn't survive the 2000s.

Any way you look at it, productivity is one of the keys to economic success. So part of the question we need to answer is, how do government policies foster or discourage productivity?

42. Output per worker.

KEY TAKEAWAYS

- Most governments want to achieve economic growth, full employment and stable prices.
- Gains in productivity a major source of economic growth.

EXERCISES

1. Think about where you work, or have worked. What kinds of things might affect the productivity of the business and workers there?
2. How could a nation grow its economy without driving up prices (inflation)?

8.7 Budgets and Fiscal Policy

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand how budgets are created
2. Understand how fiscal policy can affect economic performance
3. Understand why earmarks are not a big deal, but Social Security and Medicare are

Modern governments spend a lot of money (including efforts to boost productivity). In most states, governments raise and spend money through budgets. That makes budgets, for the most part, a matter of law. For the United States, and most countries, and for any state or local government to raise and spend money, the legislative body of that government must pass a law authorizing how much money will be spent and for what purpose. So, in the U.S., Congress (both the House and the Senate) must agree on a spending bill that authorizes government agencies to spend money in any particular way. Budgets can be a single, large bill containing many categories of spending, or they can be broken up into different bills allowing different kinds of spending. So if you hear or read that Congress has passed a defense appropriations bill, that means they have approved a spending plan for the Defense Department, and through them, all the spending that will take place on behalf of the Army, Navy, Air Force, and Marines.

The federal budget, passed by Congress and signed by the president, spends more than $3 trillion dollars a year, close to one quarter of GDP. The federal budget is paid for by taxes, earnings, transfers and borrowing.

Budgets typically have two parts: revenue (how much money is coming in) and expenditure (how much money is going out). (A revenue package may come in a separate bill, but budgets are built on the assumption that enough revenue will be available to pay for the spending.) If revenue exceeds spending, that's a **budget surplus**[43]. If spending is greater than revenue, that's a **budget deficit**[44]. As we will see, each situation has a mixed effect on the economy. The accumulated deficits are called the national debt.

Figure 8.4 *[federal budget expenditure and revenue charts]*

For the most part, governments don't just print money when they need more. They either cut spending, or raise taxes, or they borrow. Do you have a Savings Bond? You are helping to fund the U.S. national debt. Governments issue bonds, which are bought by investors. The bonds pay interest, and after so many years, usually 10 or 20, the investor gets his or her initial investment (principal) back. Investors buy bonds because they are backed by the faith and credit of the issuing government (so U.S. or Canadian bonds are a safer investment than, say, bonds from Zimbabwe or Afghanistan). Governments often also use bonds to fund capital improvements, such as public buildings or transportation projects. The contractors want to get paid right away; the government uses tax revenue to pay back the investors who lent them the money for the project.

Figure 8.5 *[national debt chart]*

One thing you may have heard in recent times is that China lends us money to fund our budget (and/or trade) deficit. That's not quite the case. Because China has a trade surplus with the U.S. they end up holding more dollars than they know what to do with. So part of what they do is to buy U.S. government treasury securities. It's a safe place to park your money. But funding the budget deficit doesn't depend on Chinese investment. The U.S. government does not borrow directly from China; China buys T-bills and Treasury notes on the open market.

Deficits get perhaps a little more attention than they deserve of late, perhaps because during the George W. Bush administration Congress was persuaded to cut taxes and keep spending high. The Bush administration argued that tax cuts would stimulate the economy by putting more money in the hands of more consumers. It's not clear how much effect this had. Supporters said that helped keep the economy moving; critics tended to say that most of the tax cut went to the wealthiest Americans, who were unlikely to raise their consumption or investment more than they were already doing. The one thing the tax cuts did do was make the budget deficit grow.

43. When the government spends less than it collects in taxes.

44. When the government spends more than it collects in taxes.

Then, in the interest of jump starting the economy, President Barack Obama got Congress to increase spending even more. This also was controversial. Conservatives, including members of the so-called Tea Party movement, criticized the president for making the budget deficit larger (the deficits of the Bush years were apparently OK). Supporters pointed out that without the stimulus, the economy likely would have done worse.

Figure 8.6 *[deficits as a percentage of GDP]*

Budget deficits obviously can't grow forever, and no rational person suggests that they should or will. At some point, if nothing else, people will stop lending you money. Conservatives argue that heavy borrowing by government "crowds out" private investment (making it harder or less likely that private firms will get loans or invest in productive enterprises), but there's basically no evidence that this ever happens. A big budget deficit—government spending extra money—can cause inflation if the economy is already booming. But if it's not, that doesn't appear to happen. We've had big budget deficits for the last 10 years, but, aside from an occasional spike in oil prices, very little inflation.

Fiscal Policy

Taxes and spending—in essence, the budget—is one way that government can influence economic performance. This is called **fiscal policy**[45]. In the most basic terms, fiscal policy is using the government's power to tax and spend to try to influence economic outcomes.

Prior to the 1930s, prevailing economic theory urged policy makers to leave things alone, an economic philosophy often referred to as **laissez-faire**[46] (French for to leave alone). The Great Depression, however, challenged the assumptions of this theory, since it lingered on for more than 10 years. Despite a relatively hands-off economic policy, the economy did not recover on its own. Unemployment was high, business profits were low, and although top executives' salaries continued to grow, the wages of most Americans did not. Unemployment was as high as 30 percent.

The economist most associated with active fiscal policy was John Maynard Keynes, a British economist who wrote about this idea in the 1920s and 1930s. He said that when consumer and business spending fell (remember that a drop in aggregate demand is what causes recessions, ultimately), government could restore the economy's vigor by spending to make up the gap. Keynes even spoke to President Franklin Roosevelt, who, despite his promises of "bold, persistent experimentation" to end the Depression, wasn't a very forward thinking person when it came to economics. He had little use for Keynes' ideas. Keynes thought it would be good for

45. The use of government spending and taxes to change economic outcomes.

46. The idea that the best economic policy is to leave the markets alone.

government to run a temporary budget deficit to boost demand and get the economy moving again. He also thought that when times are good, you should use the resulting budget surplus to pay off the debt you acquired during the recovery phase.

Why would fiscal policy stimulate the economy? Increasing government spending would increase total demand, leading businesses to sell more product, thereby boosting profits and, hopefully, wages and employment. That increase should multiply throughout the economy, as those business owners and their employees now will have more money, and they, too, are likely to spend some of it. Depending on what government spends on, it's a temporary fix. Opponents of fiscal stimulus would argue that in the long run the economy will fix itself, if left alone. Keynes' famous response was, yes, but in the long run, we're all dead.

Fiscal policy takes many forms:

- Employment: The U.S. government, for example, employs several million people at a variety of tasks. Those people spend their government paychecks on normal consumer items, such as housing and food, and add to the total demand for goods and services in the economy, while providing services that people often say they want, everything from defense to police and fire services to public education.
- Transfer payments: The government processes transfer payments such as money sent to recipients of Social Security, welfare, and unemployment compensation. This raises the income and hence the consumption of people who might otherwise not be spending as much money. This raises overall demand in the economy.
- Government consumption: The government buys a large amount of goods and services. This provides jobs for the people who make and sell the goods that government buys, from defense-related materiel to health care and construction equipment.

In more recent times, President Obama's stimulus package provided money for infrastructure spending, and money to states and local government to permit them to balance their budgets without slashing services and payrolls. Leading up to the 2012 presidential campaign, Republicans liked to call it "the failed stimulus package," but people who weren't running for president tended to argue that the stimulus, together with actions taken by the Bush administration in 2007–2008, had kept us from slipping into another Great Depression. Nobel Prize-winning economist Paul Krugman said that the only problem with the stimulus package was that it wasn't big enough. He estimated that the stimulus needed to be about twice as big to push the economy toward full recovery.

It seems to make a difference what government spends our money on. Transfer payments eliminate a lot of human suffering. Before Social Security, for example, senior citizens were overwhelmingly poor. Defense spending tends to be less stimulating (and that's not the same thing as non-stimulating) to the overall economy, because the items purchased, such as tanks, don't then circulate elsewhere in the economy. Spending on infrastructure—such as building schools, bridges, roads, ports and other public facilities—may do the most to stimulate the economy since the results—better education or transportation networks—can help the economy to be more productive overall. Spending on education, particularly post-K–12 education and training, also tends to help the economy. The GI Bill, which after World War II allowed millions of American veterans to return to college, provided a huge boost to the post-war economy, by training an entire generation of engineers, scientists, doctors, lawyers, business people and teachers. (Before World War II, not so many people went to college. After World War II and the GI Bill, people expected to.)

Earmarks

One of the budgetary categories you may have heard something about are congressional **earmarks**[47]. Earmarks are amendments to bills moving through Congress that contain money for projects in a representative's home district or in a senator's home state. They've generated a lot of heat and noise because some of them look like boondoggles, and a lot of them have been described as boondoggles. But one person's doggle is another person's boon. So, for example, in one of the most infamous examples, Ketchikan, Alaska's "bridge to nowhere" actually would have connected the city to the island where its airport is located. That project is controversial even in Ketchikan. I asked a friend of mine who lives there about it and he replied, "Do you want to see me start a fight?" But many of the examples listed as boondoggles don't look so bad once you understand them. In my own neighborhood, an earmark project that repaved a beat-up stretch of suburban arterial, adding sidewalks and a turn lane, was listed on a Colorado Republican senator's list of the worst projects in the country. Apparently, one of his staff had interviewed a restaurant owner whose business was hurt by the traffic disruptions caused by the project. I contacted the senator's office to ask when they'd actually visited the project. I never heard back from them.

But what you should know about earmarks is that they total less than 1 percent of the entire federal budget. We could make them all go away tomorrow and the federal budget deficit would be nearly as big as ever. So while earmarks are a convenient whipping boy for opponents of federal spending, they're not a significant source of fiscal calamity.

47. Amendment ("riders") attached to bills in Congress that provide funding to projects in a member of Congress home district or state.

Social Security and Medicare

Another controversial budget category is **Social Security**[48]. It is the main retirement program for most citizens of the United States. Most industrialized nations have some sort of public retirement program. Today, more than 100 nations—for Algeria to Zimbabwe—have public retirement programs that operate more or less like Social Security. People pay in something, and get something out when they retire. Arguably, it has been one of the most successful and popular programs in the United States, but still not without controversy as the nation's demographics evolve toward an older average population.

Social Security got its start in the Great Depression. With the advent of more modern medicine and public health campaigns, average lifespans in the U.S. increased by 10 years from 1900 to 1930. Meanwhile, beginning in 1920, more people lived in cities than on farms for the first time in the nation's history. So, people were no longer self-sufficient farmers who lived several generations in one home, but increasingly were urban dwellers who lived in single-family homes and apartments. With the onset of the Great Depression and high unemployment, many older people lost their jobs. Although some states had public pension systems, it was hard to qualify for them and most of them were woefully underfunded.

Enter Social Security. The early years of the Great Depression led to a lot of reform, including the Social Security Act of 1935. People started paying Social Security taxes in 1937, with payments kicking in over the next three years. At the time, life expectancies after retirement were not great, so few people if any anticipated that people might, someday, collect benefits for 30 years after retirement. In fact, when the act was passed, the life expectancy for a man born in 1930 was only 58 (62 for women), and the retirement age for benefits was 65. Now, on the other hand, if you were born in 1990, you should expect to live at least another 15 years if you're a man and nearly 20 years if you're a woman. That puts a strain on the system. In recent times, there are at least 35 million people over the age of 65 in the United States, and the great majority of them are collecting Social Security.

And part of the reason for that is Social Security. In 2008, Social Security provided more than $600 billion in benefits to more than 50 million Americans, plus another $43 billion paid to 7.5 million people receiving Supplemental Security Income (SSI), a 1974 program that seeks to cover people who may not have qualified for Social Security. Once Congress adopted automatic Cost of Living Adjustments (COLAs) in the 1970s, Social Security served to virtually eliminate the incidence of poverty among senior citizens. And as everybody pays in, and everybody who worked enough in their lifetimes qualifies, for a long time Social Security was described as the "third rail" of American politics—a reference to the electrified "hot" rail that powers some transit trains. Touch it, and you die.

48. The U.S. government program that provides retirement income to senior citizens.

In more recent times, some conservatives have taken aim at the program. President George W. Bush proposed letting people invest part of their own Social Security tax payments in whatever they wanted. The Great Recession of 2007–2009, which saw the stock market tumble, called the wisdom of that into question, but even before then, voters seemed inclined to reject the president's proposal. (It was never very popular in public opinion polls. And it's worth noting that both Social Security and Medicare have much lower expense ratios than do their private sector counterparts [Wall Street investment firms and private insurance companies]. So it's not a given that the private sector would provide these services more efficiently.)

In 2011, another Texas governor, Republican presidential candidate Rick Perry, called Social Security a Ponzi scheme. Charles Ponzi was a con man who was famous in the 1920s for promising high returns on small investments. Ponzi paid off the earlier investors with later contributions. As long as his fund kept growing, he could keep his investors happy. But eventually somebody figures out that the emperor is indeed, buck naked, and the whole scam collapses. The same thing happened with financier Bernie Madoff in the 2000s. (Ponzi and Madoff both ended up in prison.)

Is Social Security a Ponzi scheme? Current contributions do go to pay current expenses, in a way. For all of its history, Social Security's contributions have gone into a trust fund, which invests the proceeds in U.S. government treasury securities, one of the safest but not always the best-paying investment in the world. As the nation ages—more older people living longer relative to the number of young people still working—the demands on the trust fund grow relative to the amount of money going into it. In theory, it won't ever run out of money, but the trust fund could be exhausted by somewhere between 2036 and 2049, depending on who's doing the estimating. That could mean a decrease in benefit levels.

It's not impossible to fix this. Several options are available:

- Raise the retirement age. If people have to work longer, they'll pay more into the system. And, with life expectancies rising, more people are working longer, sometimes just for something to do.
- Raise the tax rate. Never a very popular solution, but one option nonetheless.
- Raise the income threshold. Because wages are taxed for Social Security only up to the first $106,800 you make, there's a lot of untapped income potential out there. Again, a politically challenging option because Americans, in general, don't want to pay more taxes.

Medicare[49] is a slightly different story. It operates much like Social Security—working people pay taxes into a trust fund that provides insurance coverage. It was created by Congress in 1965, at a time when only half of seniors had any kind of health care coverage (and 30 percent still lived in poverty).

And nobody needs health care quite like senior citizens do, so there are great demands on the system. Medicare's trust fund could run dry by 2024, a situation exacerbated by Congress and President George W. Bush adding a prescription drug benefit—without any increase in funding—in 2003. The plan also barred Medicare from bargaining with drug companies (the Veterans Administration gets to bargain and pays half for drugs what Medicare pays).

Again, the solutions are similar to those found in Social Security—some combination of higher taxes and lower benefits. In recent years, Democrats have proposed broader health care reform that would spread the risk among more people. Insurance programs work best when they cover a broad base of people. Republicans, on the other hand, have proposed privatizing the whole operation, which would mean senior citizens pay much more out of pocket for health care expenses.

Taxes

Taxes: The other side of fiscal policy is taxes. Taxes redistribute income from those who have to those who don't by funding the above-mentioned activities; they also are used to discourage some activities (such as taxes on cigarettes and liquor) and encourage others (like the income tax mortgage interest deduction, which helps make housing more affordable for many people).

The nature of the taxes used to fund the government also has an impact on the economy. Taxes can be **flat**[50], **progressive**[51] or **regressive**[52].

- A flat tax is just that—everybody pays the same rate. Flat taxes are the darlings of the ultra-rich, since many of them would pay less tax than they do now. Flat taxes also are regressive, however. Let's say the tax rate is 10 percent. Ten percent of Bill Gates' income would be much more money than would 10 percent of my income or yours. But that 10 percent would mean a lot more to someone who makes a lot less. Someone making $1 million a year, although paying $100,000 in taxes, still would have $900,000, on which, we might guess, he or she still would live pretty well. But 10 percent of the income of someone making $40,000 a year—$4,000—would be much more of a hardship for

49. The U.S. government program that provides health insurance coverage to senior citizens.
50. A tax in which everyone pays a specified percentage of their income.
51. A tax in which as you make more money, you pay a higher level of tax on additional earnings.
52. Any tax in which persons at lower income levels pay a higher proportion of their income in taxes, and in which higher income earners pay less.

that person. Taxes are regressive when they take a bigger share of low-income people's money than they take of wealthy people's money.

- Progressive taxes are those that take a progressively larger share of someone's income. The federal income tax is graduated, because depending on your income, you may pay 15–35 percent. (Not the whole 35 percent—the top marginal rate is only applied to your earnings over a given threshold, say $100,000. So the 15 percent applies to the first $20,000 or so of everyone's income, and the additional rate—in a series of steps—applies only to what you earn over that.) When the top marginal rate was 70 percent, that appeared to have encouraged people to find ways to legally hide their money from the government, as opposed to investing it and making more money. Parking your money in an off-shore bank account in the Cayman Islands doesn't do much for the U.S. economy (although it's good for the Caymans); investing in almost anything in the U.S. tends to do more good.
- Any tax that charges everybody the same, regardless of income, is regressive. So a flat tax is regressive, as are most sales taxes.

Tax cuts also can be a tool of fiscal policy. A tax cut can put more money in consumers' pockets, thus encouraging spending; a tax hike can help cool the economy off by doing the opposite. Despite the claims that tax cuts will spur economic growth, they don't seem to have that affect. Tax cuts in the early 1960s, in the early 1980s, and in 2001 and 2003 all failed to make the economy grow much. In the last example, the Bush administration said the tax cut would so spur the economy that the budget deficit would disappear, but as with Ronald Reagan's tax cuts of the early 1980s, that didn't happen. The budget deficits just got bigger. What Reagan was arguing, and what Bush was perhaps unwittingly agreeing with, is called **supply side economics**[53]. Supply side economics were the brainchild of Arthur Laffer, once an economics professor at the University of Southern California. At a party with a journalist, Laffer drew what became called the Laffer Curve on a cocktail napkin (I'm not making this up). Laffer's idea had some logic to it. He suggested that if taxes were too high, economic activity would be discouraged. And if they're too low, the same thing happens. If they're too high, people don't get enough reward for their efforts. If they're too low, government doesn't provide enough services to allow the economy to function. The question remains, however, where we might be on the curve—are taxes too high, too low, or just about right? President Reagan's argument at the time was that taxes were too high, so that cutting them would spur economic activity and actually generate more tax revenue. Instead, Reagan oversaw bigger deficits than those he inherited from his predecessor, Jimmy Carter.

53. An economic theory that suggests that if taxes are either too high or too low, economic activity will decline.

Who Pays the Most Taxes?

How you answer this question depends on how you slice the economic pie. It's an important question because taxes allow the government to pay for the services and benefits that people say they want. And as Americans, in general, don't like taxes, it's a subject of never-ending debate.

First of all, everybody pays something. One of the Fox News buzz phrases about taxes of recent vintage has been that a flat tax would give everybody "a skin in the game," borrowing a metaphor from the world of golf (which I still don't understand). The truth of the matter is that while some people make so little money that they effectively pay no federal income tax, everybody who works pays payroll taxes, which contribute to the Social Security and Medicare trust funds. Everyone also pays sales tax in the 45 states that have such a tax. And taxes such as property taxes get passed on to people who rent in the form of higher rent. So everybody, it would appear, has a skin in the game.

As noted elsewhere in this chapter, the United States has a graduated income tax, which means the more you make, the higher your tax rate. The higher tax rate is only applied to income over a certain level. So if the basic rate is 10 percent on your first $8,500 of earnings, everybody pays that, regardless of their total income. The top marginal rate is 35 percent on incomes over $379,150. But no one pays that rate on all their income. People who earn more than $1 million a year, for example, pay an average total rate of 24 percent. The top 400 wage earners in the country paid 18.1 percent in 2008.

Upper income earners do pay the most federal income taxes. The top 1 percent of wage earners—people earning more than $380,000 a year—pay 19 percent of the total federal income tax bill in a typical year. The bottom 50 percent—people earning less than $33,000 a year—pay only 2.7 percent of total federal income tax. (The fact that half the country makes less than $33,000 a year ought to jump out at you, as it raises a whole host of other issues.)

And this is where things get complicated. The top 1 percent also control 50 percent of the nation's total wealth and earned a little over 20 percent of the nation's total personal income. Wealth in this case includes stocks, bonds, real estate—anything of measurable value. The top 20 percent control more than 80 percent of the nation's wealth; the bottom 20 percent is worth effectively zero (meaning that, if anything, they have debt, not wealth). Meanwhile, the very richest Americans—those making more than $10 million a year, pay only about 25 percent of their income in taxes. So while they pay a lot of tax, they still have a lot to live on.

If you take all federal taxes, most of the money comes from the middle class—people earning between $34,000 and $140,000—a year, paying slightly more than 50 percent of the total tax bill. That includes all other federal taxes, including the payroll taxes for Social Security and Medicare.

People who think taxes are too high look at the numbers on share of personal income taxes; people who think they're too low look the relative tax burden. The argument for lower taxes tends to be that with more money in their pockets, the wealthy classes will invest more and make the economy grow. The argument against lower taxes, aside from their effect on the federal budget deficit, tends to be that the so-called job creators aren't really letting much of the wealth trickle down. Corporate profits rose 16 percent from 2001–2007, but average wages rose less than 1 percent over the same time period. You will, as always, have to make up your own mind as to who's right in this debate.

Another common complaint is that the U.S. has the highest corporate tax rate in the world, which is more less true in any given year (tax rates do change). But few U.S. firms, if any, pay this rate, thanks to a generous array of allowable deductions and credits. According to the Tax Policy Center, a non-partisan research outfit, the total tax burden in the U.S. is a little over 25 percent of GDP. The next six biggest economies in the world have a higher tax total tax burden (almost 34 percent) and the 34 countries of the OECD (Organization for Economic Cooperation and Development) average 34.7 percent. Americans pay slightly more in income taxes, less in corporate taxes, more in property tax and much less in sales taxes than do citizens in other countries.

KEY TAKEAWAYS

- Budget deficits can have a mixed impact on the economy.
- Fiscal policy can be used to stimulate economic activity.
- Tax increases and tax cuts, a part of fiscal policy, can be used to stimulate the economy or cool it down.

EXERCISES

1. What tax rate would discourage you from working more?
2. What do you think the government should spend money on? What do you think it shouldn't spend money on?

8.8 Monetary Policy

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand the operation of the Federal Reserve.
2. Understand the impacts and limitations of monetary policy.

Another way in which government can affect economic performance is by controlling the supply of money in circulation. This is called **monetary policy**[54].

The Wonderful World of Money

First, a word about money. Humans have been using money as a means of exchange for a long time. Early forms of money have ranged from rare shells to cocoa beans; rare metals such as gold and silver also have long been popular. Money is a store and standard of value—it allows flexibility and lowers transaction costs by serving as a medium of exchange. Without money, we'd have to barter. There are groups who promote barter relations between people and businesses, but in order for barter to work, I must have exactly what you want in equal value to what I want, and you have to have exactly what I want. So money greases the wheels of the economy. It's much easier to just give someone money in exchange for a good or service, versus finding exactly what they want in trade.

Money needs to be portable, divisible, uniform and durable. Gold and silver hence became popular as money because they are soft metals and easy to make coins and bricks out of; they are durable; and you can weigh them to determine if they are what they claim to be.

But they're heavy. As trading relationships between cities grew in medieval Europe, it became easier to send a paper note representing the value of the gold involved from, say, Florence to Milan, rather than shipping all that gold. Eventually people began to just trade the paper notes; hence paper money was born in the west. (The

54. Controlling the supply of money to change economic outcomes.

Chinese also used paper money at different times in their history, but often returned to silver and other metals.)

Gold Bugs

For a long time, paper money was somewhat looked down upon, as the paper has less intrinsic value than does gold. So, typically, paper money was backed by gold; for much of the 19th century, you could go to a bank and trade your paper for gold.

You will hear the occasional critic claim that we should be back on the gold standard, or some other commodity standard. This would severely limit the money supply, which tends to limit inflation. But this also presents certain problems. If you can't change the money supply, you can't prime the economic pump when necessary. Moreover, if there's not enough money in circulation, the economy is less likely to grow, if only because people hoard money (at that point, by definition, it is a scarce commodity). Some scholars assert that the world faced a 20-year depression from the 1870s to the 1890s because there was a shortage of money, a situation rescued only by the discovery of gold in South Africa and elsewhere in the 1880s and 1890s. In the 20th century, most nations, including the United States, jettisoned the gold standard, so that now paper money is the main standard of value. Fans of gold argue that prices have far outstripped the gain in value of gold, but the truth of the matter is that gold is much less valuable now than it was 100 years ago. And paper money, also sometimes called fiat money (and not because you can buy an Italian car with it), is backed by something—by the strength of the economy that issued the money. Around the world, currency values fluctuate along with the performances of the underlying economies.

What matters most about money is how much is in circulation. Money is measured in a couple of categories:

- M1—Cash money, which includes 2–3 percent coins, 25–30 percent paper currency and the rest in checking accounts.
- M2—this includes M1 plus savings accounts and certificates of deposit (CDs).

The Money Supply

Different schools of economic thought disagree on how much the money supply matters. Monetarists say it's the only thing that matters; others say it doesn't matter at all. Neither of these points of view makes much sense to me. The evidence is that it does matter, but it's not the only thing that matters.

True story: A group of couples with young children formed a babysitting co-op. This way they could have babysitters they knew and trusted, and be able to have an occasional evening out. So the group printed up coupons, each good for one evening of babysitting, and gave each couple two coupons. In a short period of time, people were going out less than they had before they formed the co-op. The reason was simple: money, in the form of the coupons, was in such short supply that no one was willing to spend any coupons. Everyone was willing to babysit, but nobody wanted to part with the scarce coupons. Eventually they issued more coupons and people started going out again. At one point, however, they had too many coupons in circulation, and nobody wanted to babysit because there were so many coupons available. So it took a few tries to reach a point where the price of babysitting was neither too high nor too low.

Nonetheless, the world is never entirely free of gold bugs, who argue that a return to the gold standard is the answer to the nation's economic woes. For example, sometime Libertarian/Republican presidential candidate Ron Paul proposes to do away with the Federal Reserve. (And if not gold, some other basket of commodities.) As we've already noted, a fixed money supply would stop inflation. It also would contract the economy right along with prices. With less money, less business will be done. Gold Monday likely would look a lot like Black Tuesday did in 1929. It would also rob the country of the ability to use monetary policy as a tool, both against inflation and recessions.

Managing the Money Supply

Most nations have a central bank that is in charge of managing that country's money supply. In the U.S., the money supply is largely controlled by the **Federal Reserve Board (the Fed)**[55]. The Federal Reserve Act was passed by Congress in 1913, creating the Federal Reserve System. The nation had been without a central bank since the 1830s, when President Andrew Jackson blocked congressional efforts to renew the charter of the Bank of the United States. As a consequence, the money supply was under the control of large private banks (and the mining industry, since any new gold strike meant that more money would be in circulation). The nation thus suffered a serious economic downturn about every dozen years or so, which, by the Panic of 1907, prodded government to leaders to take action and create the Fed.

The Fed is an odd mix of public and private. It's a government agency; its top officials are appointed by the president and confirmed by the Senate, but it's also a private bank run by private bankers. By not being subject to election, it is hoped the Fed will make the tough choices needed to keep the economy moving, and not worry so much about short-term political pressure.

55. The nation's central bank, which is in charge of controlling the money supply.

The Fed has a chairman and vice chairman, and a board of governors, plus 12 regional Fed banks scattered across the country. The Fed controls the money supply through setting the discount rate, reserve requirements, and through open market operations.

- The reserve requirement tells banks how much of their customers deposits they can lend out and how much they have to keep on hand. A lower reserve requirement gives banks more leeway to make loans. Typically, the reserve requirement is around 20 percent.
- The discount rate is the rate the Fed charges member banks (and nearly all U.S. banks are members of the Federal Reserve system) on short-term loans. A higher rate of interest makes money more expensive, which means banks will charge more for loans to their customers. And if you remember the law of demand—at higher prices, consumers want less of a product—you can see that higher interest rates mean less borrowing and less economic growth.
- **Open-market operations**[56]: This is the Fed's most common tool. The Fed buys and sells U.S. Treasury securities (remember all those bonds the government sells to fund the deficit?) to influence interest rates and the money supply. If the Fed buys securities (in the open market), investors have more cash in their hands. Under these circumstances, money is more plentiful, loans are cheaper, and economic activity can pick up. If the Fed sells U.S. government bonds, investors have less cash in hand—the money supply shrinks, loans become more expensive, and economic activity slows down.

Why would the Fed do that? The Fed is assigned with two sometimes conflicting tasks: Ensuring economic growth and keeping a lid on inflation. If the economy overheats, inflation can result. As basically a bunch of bankers, the Fed detests inflation, and will try to kill it by tightening the money supply. But if the economy is stagnant or shrinking, increasing the money supply can help nurse it back to health.

Does this work? Sometimes, and sometimes remarkably effectively. In the late 1970s and early 1980s, inflation in the U.S. topped 10 percent. It was killing banks and lenders, destabilizing commerce and industry, and making consumers feel helpless as their savings and investments were eaten up by rising prices. The Fed, under Chairman Paul Volcker, engaged in an experiment in strict monetarism. Strict monetarists believe that the only thing that matters is the precise growth rate of the money supply. So the Fed put the brakes on that, interest rates soared, and the inflation dragon was at least temporarily caged if not slain. As with most policy choices, there were tradeoffs. High interest rates hurt the auto industry (often, you have to borrow money to buy a car) and all but killed the housing industry, which

56. The buying and selling of U.S. government debt securities by the Fed to change the amount of money in circulation, hence driving interest rates up or down.

may be as much as 25 percent of the U.S. economy (you borrow a lot of money to buy a house). Inflation went away, replaced by the steepest recession since the Great Depression of the 1930s (and the deepest economic downturn until the Great Recession of 2007). By the mid-1980s, however, the Fed ended its monetarist experiment and the economy began to recover.

Expansionary monetary policy can have a positive effect on the economy. In 1987, easy Fed monetary policy kept a stock market tumble from becoming anything more than a blip. Expansion by the Fed also helped the economy recover in the early 1990s. In the Great Depression, tight money policy probably helped contribute to the worst economic era in the nation's history.

Nonetheless, monetary policy doesn't always work. What the Fed can control is the money supply, not demand. And while cheap money encourages people to borrow, nobody's borrowing if they're afraid they won't be able to repay the loans. Businesses in particular don't borrow to expand production if nobody's buying in the first place. So, despite constant efforts by the Fed amid the Great Recession of 2007, the economy didn't fully recover because nobody was borrowing anyway. Arguably, things could have been much worse without the Fed's actions, but at some point, lower interest rates and plenty of available money becomes the equivalent of pushing on a string: the back end moves, but the front end of the string goes nowhere.

KEY TAKEAWAYS

- The Federal Reserve Board controls the money supply in the U.S. Most nations have a central bank that performs a similar function.
- Monetary policy can make the economy heat up or cool down, but monetary policy by itself may not be enough to encourage consumer or business demand.

EXERCISES

1. What tools does the Fed use to influence economic outcomes?
2. Why might monetary policy sometimes not help the economy recover?

8.9 Regulation

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand the trade-offs involved in the regulation of the economy.
2. Understand some of the ways in which the government regulates economic activity.

The third area of government intervention in the economy is perhaps the most controversial: **regulation**[57]. Regulation imposes both costs and benefits on consumers and businesses, and frequently represents substantial tradeoffs between economic efficiency and protecting people and the environment. Regulation both helps and hampers economic performance. Too much regulation can choke an economy, but it is also arguable that no regulation will allow too many market failures (and no amount of reading Ayn Rand will change that). People too often look at either the costs or the benefits; let's try to consider both.

Regulation shows up in a variety of ways, from standardized weights and measures to workplace safety rules. Regulation imposes costs and benefits; it both helps and hurts economic performance. Ironically, a lot of regulation comes at the request of the regulated, oftentimes as a way to limit competition and create economic profits. More about all of this as we go.

Weights and measures is a good example of just what regulation does. Standardizing a pound—so that when you buy a pound of flour, you know you're getting a pound, has costs and benefits. The cost is the equipment needed by the flour mill to be certain that every bag comes out the same. The benefit is lower transaction costs for the consumer—you don't have to bring a scale with you to check the merchant's measurement. But while most regulation does pretty much the same thing—lowering some costs while raising others—much of it is more controversial than the weight of a pound.

57. Government intervention that prescribes economic outcomes, or requires, limits or prohibits some kinds of economic behavior and/or activity.

The Evolution of Regulation: Is That Any Way to Run a Railroad?

In the United States we have had economic regulation since colonial days, from standardized weights and measures to rules about who could do what to whom. The adoption of the U.S. Constitution, however, limited the ability of states to regulate commerce that crossed over their borders, in one stroke of the pen creating one of the world's widest-ranging free markets. This played no small part in both the development of the nation and its growing wealth.

However, by the late 19th century, amid the industrial revolution, people began to notice various market failures, or at least the uneven rewards that markets sometimes dole out. Farmers, whose biggest problem was most likely too much debt and falling food prices (prices fell throughout the 19th century as productivity rose), clamored for regulation of railroads. They believed that railroads were charging too much to haul agricultural products. Railroads were the dominant interest group of the late 19th century—railroads were the only way to move goods east to west.

The power of railroads demonstrates my Third Law of Political Economy: Economic interests are politically dominant to the extent that they are economically dominant. And although the railroads were often badly run, they did enjoy high profits as long as they didn't have much competition (and in the late 19th century, there were no highways, no airplanes, not even the Panama Canal). Because railroads were a dominant economic interest—you pretty much had to use them to ship anything—they had political power, particularly in northern and western states. That led them to dominate state legislatures, which at that time elected U.S. Senators. So railroads had a lot of pull in the U.S. Senate, which then as now could say yes or no to presidential nominations to the federal courts. Consequently, the courts consistently ruled that neither the states nor the federal government could regulate railroads, and railroad interests dominated national politics.

The railroads, Congress, courts and constituents battled it out in court and at the ballot box, until finally in 1887 Congress created the Interstate Commerce Commission. Over the next few decades, the ICC was given enough teeth to regulate the prices and practices of not only railroads, but also the trucking and bus industries, so that until the 1970s, there was little price competition among freight haulers. Unfortunately for the railroads, they became heavily regulated just when competition finally appeared, in the form of trucks, highways, aircraft, faster steamships and the Panama Canal. Railroads were hurt so badly by regulation that America's rail system went from the finest in the world to one of the most pathetic, and only recently have rail firms begun to recover.

Airlines underwent a similar bout of regulation beginning in the 1930s, but they asked for regulation from the federal government to end "ruinous" competition and preserve the industry. For the next 40 years, only rich people flew, and the prices charged were the same for everyone. Airlines competed only on service, and only two new routes were approved at a time when the nation's population was on its way to doubling.

Finally, in the 1970s, economists and policy makers began to realize that all this regulation had created a highly inefficient transportation sector, whose products and services were overpriced and whose businesses were badly run.

Deregulation[58] came on in a big way in the 1970s and 1980s. This has made business more challenging for all transportation firms, but that's what competition is supposed to be about, isn't it? The transition has been painful; lots of airlines and trucking companies went out of business, and profits for the remaining carriers fell. The answer might have been to not regulate such businesses in the first place—where there's room for competition, markets can usually sort things out—but hindsight is easy, isn't it?

On the other hand, safety regulation has made workplaces safer and more predictable; environmental regulation has made the environment cleaner. Critics of regulation like to point to the cost of such regulation, but they never bother to add up the savings in workers who aren't injured, in lakes and rivers that you can swim in again (and that don't catch fire, as some did in the 1970s), and in lower health care costs from cleaner air. The fact that regulation sometimes goes too far doesn't lead to the conclusion that zero regulation is better still. One only has to think of the recent problems with dangerously bad food imported from China to understand, for example, the importance of food safety regulation.

This is, of course, my opinion, and you needn't agree. At a minimum, regulation represents a lot of tradeoffs. Regulation imposes costs and benefits on everyone. Costs are higher for producers, which they usually pass on to consumers. On the other hand, some costs are lower for producers because, if they're adhering to the law, they should face lower legal costs, and their costs won't be different than their competitors if everyone faces the same regulations. Costs for consumers, in terms of safety and predictability, also are lower. The same is true for regulation of workplace safety—higher costs in terms of compliance, lower costs in terms of fewer work hours lost to injury; and for pollution and environmental damage—higher costs for meeting pollution requirements, for both producers and consumers, and lower costs for society from less environmental damage and health problems.

58. The move to reduce government regulation so as to encourage more economic efficiency and hence economic growth.

Electric Dreams: the Life and Times of Regulation and Deregulation

From the time Thomas Edison figured how to make a practical electric light bulb, electricity had a huge impact on human existence. In a few decades, we went from a world lit only by fire (to borrow the historian William Manchester's phrase) to one where people could and did stay up later, because there was light. How to accommodate this new wonder in terms of business models and regulation quickly became a lightning rod issue for both business and government.

As we've already discussed, public enterprises such as power and water districts arise in part because they are what are called **natural monopolies**[59]—the market is more efficiently served by one provider. That's because it wouldn't make financial sense for firms to build a separate set of water, power or sewer lines every time a business or homeowner switched from one provider to another. Natural monopolies such as these tend to be regulated—state agencies rule on pricing decisions by private firms that are natural monopolies; in the case of public firms such as a local water district, they have an elected board of directors who can be unelected if they don't do a good job of both maintaining the system and keeping rates low. For much of the 20th century, this was the prevailing wisdom.

Whereas deregulation of airlines made flying a lot cheaper for everyone, some deregulation hasn't worked as well. Deregulating trucking and airlines was a success for consumers if not for the deregulated firms. In the midst of the euphoria over deregulation, some folks began to argue that traditionally regulated monopolies such as electric utilities also could be deregulated.

What changed? During the first half of the century, electric rates fell as generating became more efficient. Utilities, usually regulated at the state level, didn't have to go state utility commissions to ask for rate hikes. (Utilities had in fact sought state-level regulation so as to avoid tangling with big-city political machines, who could and would just say no to business.) So even though they weren't always very well run (such as including the cost of their political activities in their electric rates, which was pretty much illegal all over the country), no one complained because electricity only got cheaper. But as technological improvements reached a plateau, costs stopped falling at a time when electric service was expanding and population was booming. By the 1960s, rates were rising. Consumers complained, and eventually got state legislatures to fund consumer advocates. Now, when utilities asked for rate hikes, there was somebody there who could tell the state utility commission that perhaps this rate hike wasn't justified. By the 1970s, utilities started losing rate cases.

59. A situation where the market would appear to be better served by only one firm.

And so they sought deregulation, arguing that it was possible to have competition for electric service (through a somewhat complicated method called “retail wheeling,” by which the electricity in your outlet came from the same generator, but somebody else got paid for it). More than 20 states toyed with the idea, and about a dozen went for it.

It didn’t work all that well. In the most egregious example, the state of California saw its electric rates soar and rolling blackouts become a regular feature of the electric landscape. Electric generating firms (surprise!) said they had to pull generating equipment off line for maintenance (thus restricting supply and raising the price). California’s system was particularly badly designed—firms bid into the market with offers of service, and the highest price bid was the price that everybody got. Seven electricity suppliers eventually all pled no-contest to charges of rigging the market.

But even outside of California, things haven’t gone so well. Prices generally have risen and there isn’t much competition, except for the largest consumers of electricity. Why? Simple supply and demand. A residential household just doesn’t buy enough electricity to make it worth a generator’s while to spend the time and money to win that account. And you probably don’t spend enough on electricity to make you want to shop around. (The promise of deregulation was competition and cheaper electricity. But some states went so far as to institute temporary price caps—limits on the price of electricity—and some even barred people from switching electric suppliers more than once a year. So, what kind of market needs a price cap? And what kind of market is it if you can’t shop around?)

When to Regulate?

What we might learn from all of this, once again, is that where’s room for real competition, markets can work. But where there isn’t, some regulation might be in order. The other, overall point to understand is that the government plays a large role in the economy, and that regulation is one part of that. We should at least ask who is hurt and who benefits from any given piece of regulation; what are the costs and benefits of regulation; and does this regulation address a market failure or simply interfere with the efficient operation of the market? So, for example, I tend to think that gasoline price regulation (which people call for every time the price goes up at the pump) merely interferes with an otherwise functioning market, whereas air traffic safety regulations tend to ensure that airlines have no temptation to cut corners in order to make more profits. But you, as always, will have to make up your own mind on this.

KEY TAKEAWAYS

- Regulation imposes both costs and benefits on consumers, producers and on society as a whole.
- Regulation can be used to limit competition, which can raise prices. It also can limit prices where there wouldn't otherwise be competition.
- Businesses sometimes oppose but sometimes seek regulation.

EXERCISES

1. Think of an economic activity in your area. How is it regulated? (For example, food safety regulations that impact the college cafeteria.) What would it mean if it had more or less regulation?
2. Should governments impose more or fewer regulations on economic activity? Why?
3. What is the rationale for regulating a business? When might that be a good idea or a bad one? What kinds of things might we think about when thinking about regulation?

8.10 Recessions and Depressions

PLEASE NOTE: This book is currently in draft form; material is not final.

LEARNING OBJECTIVES

1. Understand what a recession is (and what a depression isn't)
2. Understand the causes of recessions, and what fixes them
3. Learn why the Great Depression was such a major event, and what led to it (and out of it)

Regulation is almost a sideshow compared to the main attraction: How is the economy doing? (Think of it this way: Will I get a job when I graduate from college, or a note from parents that as long as I'm still living at home, I need to do my chores?) Despite the best efforts of the private sector, Congress, the president and the Federal Reserve, the economy isn't always expanding. Sometimes it's flat, and sometimes it's shrinking. If the economy contracts (as measured by GDP) for two consecutive quarters (six months), that's a **recession**[60]. Recessions mean fewer people have jobs, and people with jobs have less money. It means more human suffering, and a lot of unhappy campers come election. In democratic societies around the world, elections often as not are referenda on the state of the economy.

A bad enough recession can be called a **depression**[61], a word picked by then-President Herbert Hoover to replace the previous term for a severe downturn, the less-happy-sounding panic. There's no good definition for a depression, except perhaps this old joke: A recession is when your neighbor loses his job; a depression is when you do. Either way, we haven't had a nationwide depression since the 1930s in the U.S., or largely elsewhere in the world.

Recessions are caused by one thing and one thing only: A drop in **aggregate demand**[62]. Aggregate demand is a useful term to describe the total demand for goods and services in the economy. Aggregate demand has three parts: consumer spending (about 70 percent); business investment (about 10 percent) and government spending (about 20 percent). So, if total demand drops, businesses will sell fewer goods and services. Workers will have hours cut or lose their jobs entirely, and the total size of the economy—GDP—will shrink. This phenomenon

60. Two consecutive quarters of economic contraction, as measured by GDP.
61. A sustained period of deep recession, characterized by high unemployment and low economic activity.
62. The total demand for goods and services in the economy.

tends to be reinforcing. If people have less money, or if they're just worried about their jobs, they cut personal spending. That means fewer houses and cars are sold, and stores sell fewer goods. Those businesses now have less money, so they cut back hours and lay workers off, who now spend less money, which means firms are doing even less business, and things get even worse.

What Causes Recessions?

Your next question ought to be, what causes that drop in aggregate demand? A lot of factors can be the culprit. And one of the potentially confusing things about understanding the economy is that nothing happens in a vacuum. All of the factors that affect economic performance are happening at the same time.

- First is the **business cycle**[63]: The business cycle is the ups and downs of a market economy. It's not really a cycle, in that it's not predictable, but it is a cycle in that it seems inevitable. (Economic policy makers can sometimes be heard to say that they've "solved the business cycle," from U.S. officials in the 1960s to Chinese officials today, but it ain't necessarily so.)

  A business cycle looks like this: Let's say there's been a boom somewhere in the economy, say the internet and telecommunications as happened in the 1990s. New products and services mean that consumers rush out to buy these new products, which leads entrepreneurs to start new firms and existing firms to expand production. That means more hiring and higher wages and general economic expansion. Things are good, and, inevitably, somebody says "the old economy is dead. This time is different." (When you hear that, grab your wallet: The end is near.) But nothing grows forever. Eventually, markets mature, sales level off or fall, firms begin to lay off workers or even fail, and suddenly the endless boom begins to look like a recession. Some economists refer to these periods as bubbles, and bubbles eventually burst. Overinvestment in railroads contributed to the many panics of the 1800s; ditto for automobiles and radios in the 1920s; blue chip stocks in the 1960s; the internet and telecom in the 1990s (leading to the recession of 2001); and the housing bubble that led to the Great Recession of 2007. If one thing is true about government and the economy, it is that this always happens. Sooner or later, markets take a tumble because human beings have a tendency to invest and spend like there's no tomorrow. And tomorrow seems to show up on our doorsteps every morning, without fail.

  But recessions can also come from policy:

63. The regular if unpredictable fluctuations of the private economy, typically featuring periods of expansion followed by periods of contraction.

- Cuts in government spending: President Richard Nixon managed to get Congress to balance the federal budget in 1969, and soon after we had a recession. Do the math: Cutting government spending will reduce aggregate demand. One of the challenges we have faced in the Great Recession is that cuts in government spending, particularly among cash-strapped states and cities, has meant a lot of jobs lost and softer overall demand in the economy. So even as the private sector slowly grows, those gains tend to be offset by losses in the public sector. Economic slowdowns also followed cuts in government spending at the close of World War I and World War II.
- Tight monetary policy: As we've already seen, cranking up interest rates in the early 1980s led to a very steep recession as the housing sector crashed and burned.
- Natural disasters: Storms and earthquakes can so devastate an area that its economy suffers. The twin hammers of Hurricane Katrina and the BP oil spill did no favors for the Gulf Coast region of the United States. At various points in human history, earthquakes and volcanic eruptions have set back the cause of human progress by centuries. An enormous eruption of a volcano in what is now Indonesia around the year 1xxx produced years of year-round winter-like conditions around the world, leading some scholars to say that it delayed the Europe's recovery from the Dark Ages by 100 years or more. Not every disaster leads to an economic downturn, however. The 9/11 terrorist attacks, epic tragedies though they were, didn't cause the recession of 2001, as the economy already was turning south before the attacks occurred.

The Great Depression

A question that often comes up, and one that people still debate, is what caused the Great Depression? The truth seems to be that it was a perfect storm of economic inevitability and bad policy, with no single cause the likely villain (despite the claims of many economists that it was the factor about which they've just written a brilliant book).

It was triggered by the stock market crash of 1929, which points to the first culprit—a bubble in investment in automobiles and radios. Investors, enabled by lax investing rules that allowed them to borrow most of the money they were buying stocks with, bid prices on stocks up to record highs. When the market came tumbling down, a lot of private wealth was erased, and firms in those key industries began the downward spiral of the business cycle. While the economy typically had recovered quickly from downturns, this time it didn't. President Herbert Hoover, up until that point an extremely popular politician and a very able administrator, usually gets cast as the villain of this piece, which isn't entirely fair. As commerce secretary in the 1920, Hoover had written a paper after the recession of 1921 suggesting that next time, the nation needed to engage in spending on infrastructure to jump the start the economy. As president during the outset of the Depression, Hoover got Congress to set a number of programs in motion, including the Reconstruction Finance Corporation, which loaned money to banks, railroads and other businesses to keep them afloat, and also pushed through bills to raise infrastructure spending.

But as the election of 1932 drew near, Hoover's opponent was shaping up to be Franklin Roosevelt. As governor of New York, FDR had done nothing to reign in the excesses of the New York Stock Exchange, but had "that vision thing," as the elder George Bush once said derisively of Ronald Reagan. FDR had the ability to make people feel good about themselves, and with unemployment climbing north of 20 percent, people wanted something positive. FDR offered a rather vague set of hopes and promises to get the economy going again, notably campaigning against what he called "irresponsible Republican budget deficits." Hoover, too, wasn't entirely comfortable with a budget deficit, and also worried that too much aid would make people too dependent on the government. (At this time, there was no welfare, no unemployment insurance—nothing except private charity, which was quickly overwhelmed by the sheer volume of unemployed Americans.) So Hoover got Congress to rein in spending, eliminating any stimulus effect of the added federal spending.

Roosevelt won the 1932 election in a landslide. He initiated a number of programs designed to put people back to work, but until the late 1930s, he pushed to get Congress to keep the budget balanced. He didn't always succeed, but the stimulus effect of Roosevelt's New Deal was always very small. In fact, in 1936, Congress cut spending so much that the economy fell further and faster than it had in 1929–1930.

Even then, the economy might have recovered sooner. On top of the cyclical downturn and tight fiscal policy, in the early 1930s, the Federal Reserve tightened the money supply to prevent an outflow of gold from U.S. reserves. So at the precise moment when the Fed should have been making sure the money supply was growing, they jacked up interest rates. That cut off borrowing and made recovery even more difficult.Monetarist guru and Nobel-prize winner Milton Friedman, and, to a lesser extent, current Fed Chairman Ben Bernanke, have argued that monetary policy was the sole cause of the Depression. Other scholars, such as Peter Temin, have argued that in fact the downturns Friedman and Bernanke point to occurred largely before the Fed tightened up credit markets. What seems likely true is that in the realm of policy, almost nothing anybody did was right, and that's why the Depression lasted so long.

Some conservatives have blamed both FDR and workers for the Depression. Some of FDR's policy initiatives, such as the National Recovery Administration, were pretty bizarre. As one political scientist noted, FDR "proposed to save capitalism by ending it." (The NRA created industry cartels which effectively would have ended most competition. The U.S. Supreme Court threw it—and its farm cousin, the Agricultural Adjustment Administration—out on its posterior.) They have also argued that if only workers had reduced their demands for higher wages, wages would have fallen enough that firms would have been able to afford to rehire. There are a couple of problems with this analysis. First, wages fells throughout the 1930s, except for those of CEOs, and second, the NRA and the AAA didn't last much more than a year. And, as we've previously observed, firms don't borrow, invest, or hire unless somebody's buying. And that doesn't describe the Great Depression.

What is true is that World War II ended the Great Depression. It forced government to borrow and spend a lot of money, which put people back to work. The budget deficit grew temporarily, but given a chance to catch its breath, the economy surged toward a general expansion that lasted into the 1970s. The British economist John Maynard Keynes had tried to tell Roosevelt this at a meeting the 1930s, but Roosevelt, like Hoover and a lot of people of that era, were prisoners of their own times. Budget deficits just seemed like a bad idea. Keynes later described FDR as having "a first-rate personality and a third-rate mind." Roosevelt, nonetheless, came off as the hero of the Great Depression, despite having done not much more than Hoover to fix it. But the changes that occurred in this era—such as Social Security, minimum wage and maximum hour laws, the right to unionize, and a lot more regulation—are with us still.

Fixing Recessions

So, we might ask, what ends recessions? Well, in the simplest terms, it's the causes of recessions, operating in reverse.

The business cycle, left to its own, eventually will turn upward. One of the keys here, and an important economic indicator, is inventories. When the cycle is turning down, firms don't order as much new product because sales are falling. Firms often are a little behind the curve on knowing how things are going, so that rising inventories often are a sign of coming trouble. So, when inventories start to fall, that's a potentially good sign. Even in a deep recession, sales don't go away entirely. Eventually, firms begin to burn through their inventories and have to place new orders. The businesses that supply them now have more work to do, which means more work for their suppliers, and so on. Slowly, the cycle begins to turn upward. Firms hire workers to meet rising demand; those workers now have more money and they go out and spend some of it pushing demand even higher. Meanwhile, in one of the great perversities of economics, recessions turn out to be somewhat good for the economy (although bad for people). Like a forest fire, the deadwood gets cleared out and new growth occurs. Some firms fail during recessions, but those are the firms that weren't as good as the ones that survive. Surviving firms, usually by a combination of learning how to do things more efficiently and by forcing their remaining employees to work harder, become more productive and eventually more profitable. As some of that profit trickles down to employees, they get a little more money and spend a little more money and the upward spiral gets a little more steam.

And that's what eventually happens in the economy, other things being equal, as economists so often say. Here's the catch: This is what happens in the long run. As Keynes famously said, in the long run we're all dead. Most people and their governments don't want to wait for economic theory to be proven true. They want economic recovery sooner rather than later; daddy's tired of Hamburger Helper and baby needs a new pair of shoes. So, more often than not, governments take action to counteract a recession:

Fiscal policy: Since the Great Depression, with the advent of welfare and unemployment compensation, when people lose their jobs, they get some help. That keeps total demand from falling as far as it did in the Great Depression. These kinds of programs are sometimes called automatic stabilizers, because spending on them pretty much kicks in as people lose their jobs. So recessions tend to be softer than they would be otherwise.

As we noted above, governments can also engage in added spending to try to boost the economy, such as President Obama's stimulus package, which gave money to states and local governments, including money for infrastructure projects such as roads and bridges. Republicans who would prefer to see someone else in the White House loudly tagged it as the "failed" stimulus package, but the truth is that the economy would have done much worse without it. Liberal critics of the president, such as Nobel Prize-winning economist Paul Krugman, have argued that the only problem with the stimulus program (as with Franklin Roosevelt's), is that it wasn't big enough. One thing that we might conclude about fiscal stimulus is that the more it contributes to gains in productivity, the better it will be for the economy in the long run. So spending on infrastructure, education and training, and small business support, will generally produce more economic gains than would just, say, dropping cash out of an airplane.

The other part of fiscal policy is taxes, and here again, governments can use tax policy to encourage economic recovery. They can give tax credits and tax breaks for certain kinds of activities, such as hiring more workers or spending on equipment (capital goods, in the parlance of business and finance). Also common are simple tax cuts—cut people’s taxes, so they have more money in their pockets. As we also noted above, tax cuts don’t have a great track record for stimulating the economy. As with cheap interest rates, firms still don’t hire more workers unless they see rising demand for their products and services. So tax breaks may also not help in that regard. The Bush and Obama tax cuts may not have worked because at that time, people seem to have used the extra money for saving rather than spending and investing. People either saved the money or paid down their debt. Neither of those is bad for the economy (in fact they’re good in the long run), but it won’t produce much short-term stimulus. It won’t boost total demand.

Monetary policy: Here again, while tight monetary policy (higher interest rates) can cool things down, cheaper money can heat things up. Lower interest rates spurred the housing industry in the 1980s, leading the U.S. out of that recession. The same thing happened in the early 1990s. But, as we’ve already noted, there has to be some level of demand already in the economy for lower interest rates to encourage people to borrow. Interest rates remained low throughout the Great Recession of 2007 and its aftermath, but neither consumers nor businesses went out of their way to borrow. The Federal Reserve, trying to ensure sufficient liquidity (ready cash) in capital markets, made sure that major banks had as much money as they could want at their disposal, and microscopic interest rates. But despite all that cash floating around, people and businesses didn’t want to borrow. Consumers, fearing for their jobs (or without them) didn’t want to take on more debt. With soft demand, businesses had no reason to borrow for expansion.

The final solution would be to wait things out and let the market sort through what’s wrong with the economy. Under this scenario, workers would cut their wage demands until it became profitable to hire them again, and the economy would then begin to turn around. This seems to have worked in the past, although it clearly didn’t happen in the Great Depression. So it’s not clear how workable this solution is in the current age, when most of us can’t go back to the farm and at least feed ourselves while we’re waiting for the economy to turn around.

KEY TAKEAWAYS

- Recessions can be caused—and ended—by a variety of factors.
- A recession is two quarters of economic contraction as measured by GDP. There is no solid definition of a depression, but it lasts longer and is more painful than a recession.
- The Great Depression appears to have been caused by a convergence of several factors. It was ended by World War II.

8.11 Summary

PLEASE NOTE: This book is currently in draft form; material is not final.

That's a lot to digest in a hurry, isn't it? Entire courses are taught, and degrees bestowed, by and people who spend lifetimes studying no more than how government and business intersect. What you should know is that government plays a big role in the economy, and that economic forces seek to use government to their own ends. What you might also understand is that economic policy has an effect on all of us, and that paying attention to what elected officials and candidates say they will do can give you a better sense of whether you want to vote for that person.