JOSEPH E. STIGLITZ

ANYONE WHO THINKS OF academic knowledge as dry and irrelevant simply hasn't studied economics. And anyone who thinks of economics as an impartial discipline, plodding on modestly without controversy, simply hasn't heard of Joseph Stiglitz, winner of the 2001 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. After Stiglitz left Stanford University to serve as a senior vice-president and chief economist of the World Bank, his appointment came to a premature end when, in 2000, he published an article excoriating the International Monetary Fund (IMF). Stiglitz, a "neo-Keynesian," targeted the IMF because it had imposed harsh austerity on the East Asian economies after a real estate bubble there collapsed. Even though many economists agreed with Stiglitz's criticisms, so notorious did the article become that the leadership of the World Bank pressured him to leave. After accepting a new post at Columbia University, Stiglitz continued to write and speak about the failures of neoliberal economics, which encourages smaller government, the deregulation of finance, and the privatizing of public services like health care and education.

Stiglitz, a prolific author, has written, co-written, or edited 26 books so far. The selection that follows is an excerpt from his best-selling book *The Price of Inequality: How Today's Divided Society Endangers Our Future* (2012). There he makes the case that neoliberal reforms starting with Ronald Reagan have produced a growing inequality that has swelled the ranks of the working poor and undermined the middle class. Stiglitz maintains that this long-term trend has dimmed the prospects for our full recovery from the collapse of 2008. After decades of lost buying power, the middle class has simply become too weak to generate the consumer spending needed for robust economic growth. Cash-strapped families no longer possess the resources to invest in their businesses or in better schooling for their children. Combined with tax cuts for the wealthiest, beginning under George W. Bush, the decline in middle-class earnings has meant lower tax revenue for government, a swelling of the national debt, and a neglect of roads, public property, and other social goods. Finally, income inequality makes the economic future more volatile, increasing the frequency of booms and busts and causing more severe collapses. Stiglitz is confident, however, that these problems can be rectified if our society is willing to take the steps he recommends: curbing the power of the financiers, raising taxes on the wealthiest 1 percent

From *THE PRICE OF INEQUALITY: HOW TODAY'S DIVIDED SOCIETY ENDANGERS OUR FUTURE* by Joseph Stiglitz. Copyright © 2012 by Joseph E. Stiglitz. Used by permission of W. W. Norton & Company, Inc. and Penguin Books Ltd.

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and on the big corporations, strengthening unions and citizens' rights, and reinvesting in public education, infrastructure, the environment, and sustainable technology.

Rent Seeking and the Making of an Unequal Society

American inequality didn't just happen. It was created. Market forces played a role, but it was not market forces alone. In a sense, that should be obvious: economic laws are universal, but our growing inequality—especially the amounts seized by the upper 1 percent—is a distinctly American "achievement." That outsize inequality is not predestined offers reason for hope, but in reality it is likely to get worse. The forces that have been at play in creating these outcomes are self-reinforcing.

By understanding the origins of inequality, we can better grasp the costs and benefits of reducing it. The simple thesis of this chapter is that even though market forces help shape the degree of inequality, government policies shape those market forces. Much of the inequality that exists today is a result of government policy, both what the government does and what it does not do. Government has the power to move money from the top to the bottom and the middle, or vice versa.

... America's current level of inequality is unusual. Compared with other countries and compared with what it was in the past even in the United States, it's unusually large, and it has been increasing unusually fast. It used to be said that watching for changes in inequality was like watching grass grow: it's hard to see the changes in any short span of time. But that's not true now.

Even what's been happening in this recession is unusual. Typically, when the economy weakens, wages and employment adjust slowly, so as sales fall, profits fall more than proportionately. But in this recession the share of wages has actually fallen, and many firms are making good profits.[1]

Addressing inequality is of necessity multifaceted—we have to rein in the excesses at the top, strengthen the middle, and help those at the bottom. Each goal requires a program of its own. But to construct such programs, we have to have a better understanding of what has given rise to each facet of this unusual inequality.

Distinct as the inequality we face today is, inequality itself is not something new. The concentration of economic and political power was in many ways more extreme in the precapitalist societies of the West. At that time, religion both explained and justified the inequality: those at the top of society were there because of divine right. To question that was to question the social order, or even to question God's will.

However, for modern economists and political scientists, as also for the ancient Greeks, this inequality was not a matter of a preordained social order.

Power—often military power—was at the origin of these inequities. Militarism was about economics: the conquerors had the right to extract as much as they could from the conquered. In antiquity, natural philosophy in general saw no wrong in treating other humans as means for the ends of others. As the ancient Greek historian Thucydides famously said, "right, as the world goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must."[2]

Those with power used that power to strengthen their economic and political positions, or at the very least to maintain them.[3] They also attempted to shape thinking, to make acceptable differences in income that would otherwise be odious.

As the notion of divine right became rejected in the early nation-states, those with power sought other bases for defending their positions. With the Renaissance and the Enlightenment, which emphasized the dignity of the individual, and with the Industrial Revolution, which led to the emergence of a vast urban underclass, it became imperative to find new justifications for inequality, especially as critics of the system, like Marx, talked about exploitation.[4]

The theory that came to dominate, beginning in the second half of the nineteenth century—and still does—was called "marginal productivity theory"; those with higher productivities earned higher incomes that reflected their greater contribution to society. Competitive markets, working through the laws of supply and demand, determine the value of each individual's contributions. If someone has a scarce and valuable skill, the market will reward him amply, because of his greater contribution to output. If he has no skills, his income will be low. Technology, of course, determines the productivity of different skills: in a primitive agriculture economy, physical strength and endurance is what mattered; in a modern hi-tech economy, brainpower is of more relevance.

Technology and scarcity, working through the ordinary laws of supply and demand, play a role in shaping today's inequality, but something else is at work, and that something else is government. A major theme of [my argument] is that inequality is the result of political forces as much as of economic ones. In a modern economy government sets and enforces the rules of the game—what is fair competition, and what actions are deemed anticompetitive and illegal, who gets what in the event of bankruptcy, when a debtor can't pay all that he owes, what are fraudulent practices and forbidden. Government also gives away resources (both openly and less transparently) and, through taxes and social expenditures, modifies the distribution of income that emerges from the market, shaped as it is by technology and politics.

Finally, government alters the dynamics of wealth by, for instance, taxing inheritances and providing free public education. Inequality is determined not just by how much the market pays a skilled worker relative to an unskilled worker, but also by the level of skills that an individual has acquired. In the absence of government support, many children of the poor would not be able to afford basic health care and nutrition, let alone the education required to acquire the skills necessary for enhanced productivity and high wages. Government can affect the extent to which an individual's education and inherited wealth depends on that of his parents. More formally, economists say that inequality depends on the distribution of "endowments," of financial and human capital.

The way the American government performs these functions determines the extent of inequality in our society. In each of these arenas there are subtle decisions that benefit some group at the expense of others. The effect of each decision may be small, but the cumulative effect of large numbers of decisions, made to benefit those at the top, can be very significant.

Competitive forces should limit outsize profits, but if governments do not ensure that markets are competitive, there can be large monopoly profits. Competitive forces should also limit disproportionate executive compensation, but in modern corporations, the CEO has enormous power—including the power to set his own compensation, subject, of course, to his board—but in many corporations, he even has considerable power to appoint the board, and with a stacked board, there is little check. Shareholders have minimal say. Some countries have better "corporate governance laws," the laws that circumscribe the power of the CEO, for instance, by insisting that there be independent members in the board or that shareholders have a say in pay. If the country does not have good corporate governance laws that are effectively enforced, CEOs can pay themselves outsize bonuses.

Progressive tax and expenditure policies (which tax the rich more than the poor and provide systems of good social protection) can limit the extent of inequality. By contrast, programs that give away a country's resources to the rich and well connected can increase inequality.

Our political system has increasingly been working in ways that increase the inequality of outcomes and reduce equality of opportunity. This should not come as a surprise: we have a political system that gives inordinate power to those at the top, and they have used that power not only to limit the extent of redistribution but also to shape the rules of the game in their favor, and to extract from the public what can only be called large "gifts." Economists have a name for these activities: they call them rent seeking, getting income not as a reward to creating wealth but by grabbing a larger share of the wealth that would otherwise have been produced without their effort. (We'll give a fuller definition of the concept of rent seeking later in the chapter.) Those at the top have learned how to suck out money from the rest in ways that the rest are hardly aware of—that is their true innovation.

Jean-Baptiste Colbert, the adviser to King Louis XIV of France, reportedly said, "The art of taxation consists in so plucking the goose as to obtain the largest amount of feathers with the least possible amount of hissing." So, too, for the art of rent seeking.

To put it baldly, there are two ways to become wealthy: to create wealth or to take wealth away from others. The former adds to society. The latter typically subtracts from it, for in the process of taking it away, wealth gets destroyed. A monopolist who overcharges for his product takes money from those whom he is overcharging and at the same time destroys value. To get his monopoly price, he has to restrict production.

Unfortunately, even genuine wealth creators often are not satisfied with the wealth that their innovation or entrepreneurship has reaped. Some eventually turn to abusive practices like monopoly pricing or other forms of rent extraction to garner even more riches. To take just one example, the railroad barons of the nineteenth century provided an important service in constructing the railroads,

but much of their wealth was the result of their political influence—getting large government land grants on either side of the railway. Today, over a century after the railroad barons dominated the economy, much of the wealth at the top in the United States—and some of the suffering at the bottom—stems from wealth transfers instead of wealth creation.

Of course, not all the inequality in our society is a result of rent seeking, or of government's tilting the rules of the game in favor of those at the top. Markets matter, as do social forces (like discrimination).

GENERAL PRINCIPLES

Adam Smith's Invisible Hand and Inequality

Adam Smith, the father of modern economics, argued that the private pursuit of self-interest would lead, as if by an invisible hand, to the well-being of all.[5] In the aftermath of the financial crisis [of 2008–09], no one today would argue that the bankers' pursuit of their self-interest has led to the well-being of all. At most, it led to *the bankers'* well-being, with the rest of society bearing the cost. It wasn't even what economists call a zero-sum game, where what one person gains exactly equals what the others lose. It was a negative-sum game, where the gains to winners are less than the losses to the losers. What the rest of society lost was far, far greater than what the bankers gained.

There is a simple reason for why financiers' pursuit of *their* interests turned out to be disastrous for the rest of society: the bankers' incentives were not well aligned with social returns. When markets work well—in the way that Adam Smith hypothesized—it is because private returns and social benefits are well aligned, that is, because private rewards and social contributions are equal, as had been assumed by marginal productivity theory. In that theory, the social contribution of each worker is exactly equal to the private compensation. People with higher productivity—a larger social contribution—get higher pay.

Adam Smith himself was aware of one of the circumstances in which private and social returns differ. As he explained, "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."[6] Markets by themselves often fail to produce efficient and desirable outcomes, and there is a role for government in correcting these market failures, that is, designing policies (taxes and regulations) that bring private incentives and social returns into alignment. (Of course, there are often disagreements about the best way of doing it. But few today believe in unfettered financial markets—their failures impose too great a cost on the rest of society—or that firms should be allowed to despoil the environment without restriction.) When government does its job well, the returns received by, say, a worker or an investor are in fact equal to the benefits to society that his actions contribute. When these are not aligned, we say there is a market failure, that is, markets fail to produce efficient outcomes. Private rewards and social returns are not well aligned when competition is

imperfect; when there are "externalities" (where one party's actions can have large negative or positive effects on others for which he does not pay or reap the benefit); when there exist imperfections or asymmetries of information (where someone knows something relevant to a market trade that someone else doesn't know); or where risk markets or other markets are absent (one can't, for instance, buy insurance against many of the most important risks that one faces). Since one or more of these conditions exist in virtually every market, there is in fact little presumption that markets are in general efficient. This means that there is an enormous potential role for government to correct these market failures.

Government never corrects market failures perfectly, but it does a better job in some countries than in others. Only if the government does a reasonably good job of correcting the most important market failures will the economy prosper. Good financial regulation helped the United States—and the world—avoid a major crisis for four decades after the Great Depression. Deregulation in the 1980s led to scores of financial crises in the succeeding three decades, of which America's crisis in 2008–09 was only the worst.[7] But those governmental failures were no accident: the financial sector used its political muscle to make sure that the market failures were *not* corrected, and that the sector's private rewards remained well in excess of their social contributions—one of the factors contributing to the bloated financial sector and to the high levels of inequality at the top.

Shaping Markets

We'll describe below some of the ways that private financial firms act to ensure that markets *don't work well*. For instance, as Smith noted, there are incentives for firms to work to reduce market competition. Moreover, firms also strive to make sure that there are no strong laws prohibiting them from engaging in anticompetitive behavior or, when there are such laws, that they are not effectively enforced. The focus of businesspeople is, of course, not to enhance societal well-being broadly understood, or even to make markets more competitive: their objective is simply to make markets work *for them*, to make them more profitable. But the consequence is often a less efficient economy marked by greater inequality. For now, one example will suffice. When markets are competitive, profits above the normal return to capital cannot be sustained. That is so because if a firm makes greater profits than that on a sale, rivals will attempt to steal the customer by lowering prices. As firms compete vigorously, prices fall to the point that profits (above the normal return to capital) are driven down to zero, a disaster for those seeking big profits. In business school we teach students how to recognize, and create, barriers to competition—including barriers to entry—that help ensure that profits won't be eroded. Indeed, as we shall shortly see, some of the most important innovations in business in the last three decades have centered not on making the economy more efficient but on how better to ensure monopoly power or how better to circumvent government regulations intended to align social returns and private rewards.

Making markets less transparent is a favorite tool. The more transparent markets are, the more competitive they are likely to be. Bankers know this.

That's why banks have been fighting to keep their business in writing derivatives, the risky products that were at the center of AIG's collapse,[8] in the shadows of the "over the counter" market. In that market, it's difficult for customers to know whether they're getting a good deal. Everything is negotiated, as opposed to how things work in more open and transparent modern markets. And since the sellers are trading constantly, and buyers enter only episodically, sellers have more information than buyers, and they use that information to their advantage. This means that on average, sellers (the writers of the derivatives, the banks) can extract more money out of their customers. Well-designed open auctions, by contrast, ensure that goods go to those who value them the most, a hallmark of efficiency. There are publicly available prices for guiding decisions.

While lack of transparency results in more profits for the bankers, it leads to lower economic performance. Without good information, capital markets can't exercise any discipline. Money won't go to where returns are highest, or to the bank that does the best job of managing money. No one can know the true financial position of a bank or other financial institution today—and shadowy derivative transactions are part of the reason. One would have hoped that the recent crisis might have forced change, but the bankers resisted. They resisted demands, for instance, for more transparency in derivatives and for regulations that would restrict anticompetitive practices. These rent-seeking activities were worth tens of billions of dollars in profits. Although they didn't win every battle, they won often enough that the problems are still with us. In late October 2011, for instance, a major American financial firm[9] went bankrupt (the eighth-largest bankruptcy on record), partly because of complex derivatives. Evidently the market hadn't seen through these transactions, at least not in a timely way.

Moving Money from the Bottom of the Pyramid to the Top

One of the ways that those at the top make money is by taking advantage of their market and political power to favor themselves, to increase their own income, at the expense of the rest.

The financial sector has developed expertise in a wide variety of forms of rent seeking itself. We've already mentioned some, but there are many others: taking advantage of asymmetries of information (selling securities that they had designed to fail, but knowing that buyers didn't know that);[10] taking excessive risk—with the government holding a lifeline, bailing them out and assuming the losses, the knowledge of which, incidentally, allows them to borrow at a lower interest rate than they otherwise could; and getting money from the Federal Reserve at low interest rates, now almost zero.

But the form of rent seeking that is most egregious—and that has been most perfected in recent years—has been the ability of those in the financial sector to take advantage of the poor and uninformed, as they made enormous amounts of money by preying upon these groups with predatory lending and abusive credit card practices.[11] Each poor person might have only a little, but there are so many poor that a little from each amounts to a great deal. Any sense of social justice—or any concern about overall efficiency—would have led government to prohibit

these activities. After all, considerable amounts of resources were used up in the process of moving money from the poor to the rich, which is why it's a negative-sum game. But government didn't put an end to these kind of activities, not even when, around 2007, it became increasingly apparent what was going on. The reason was obvious. The financial sector had invested heavily in lobbying and campaign contributions, and the investments had paid off.

I mention the financial sector partly because it has contributed so powerfully to our society's current level of inequality.[12] The financial sector's role in creating the crisis in 2008–09 is apparent to all. Not even those who work in the sector deny it, though each believes that some other part of the financial sector is really to blame. Much of what I have said about the financial sector, though, could be said about other players in the economy that have had a hand in creating current inequities.

Modern capitalism has become a complex game, and those who win at it have to have more than a little smarts. But those who win at it often possess less admirable characteristics as well: the ability to skirt the law, or to shape the law in their own favor; the willingness to take advantage of others, even the poor; and to play *unfair* when necessary.[13] As one of the successful players in this game put it, the old adage "Win or lose, what matters is how you play the game" is rubbish. *All that matters is whether you win or lose.* The market provides a simple way of showing that—the amount of money that you have.

Winning in the game of rent seeking has made fortunes for many of those at the top, but it is not the only means by which they obtain and preserve their wealth. The tax system also plays a key role, as we'll see later. Those at the top have managed to design a tax system in which they pay less than their fair share—they pay a lower fraction of their income than do those who are much poorer. We call such tax systems regressive.

And while regressive taxes and rent seeking (which takes money from the rest of society and redistributes it to the top) are at the core of growing inequality, especially at the top, broader forces exert particular influence on two other aspects of American inequality—the hollowing out of the middle class and the increase in poverty. Laws governing corporations interact with the norms of behavior that guide the leaders of those corporations and determine how returns are shared among top management and other stakeholders (workers, shareholders, and bondholders). Macroeconomic policies determine the tightness of the labor market—the level of unemployment, and thus how market forces operate to change the share of workers. If monetary authorities act to keep unemployment high (even if because of fear of inflation), then wages will be restrained. Strong unions have helped to reduce inequality, whereas weaker unions have made it easier for CEOs, sometimes working with market forces that they have helped shape, to increase it. In each arena—the strength of unions, the effectiveness of corporate governance, the conduct of monetary policy—politics is central.

Of course, market forces, the balancing of, say, the demand and supply for skilled workers, affected as it is by changes in technology and education, play an important role as well, even if those forces are partially shaped by politics. But instead of these market forces and politics balancing each other out, with the political process dampening the increase in inequality in periods when market forces might have led to growing disparities, instead of government *tempering* the excesses of the market, in America today the two have been working together to increase income and wealth disparities.

RENT SEEKING

Earlier, we labeled as *rent seeking* many of the ways by which our current political process helps the rich at the expense of the rest of us. Rent seeking takes many forms: hidden and open transfers and subsidies from the government, laws that make the marketplace less competitive, lax enforcement of existing competition laws, and statutes that allow corporations to take advantage of others or to pass costs on to the rest of society. The term "rent" was originally used to describe the returns to land, since the owner of land receives these payments by virtue of his ownership and not because of anything he *does*. This stands in contrast to the situation of workers, for example, whose wages are compensation for the *effort* they provide. The term "rent" then was extended to include monopoly profits, or monopoly rents, the income that one receives simply from the control of a monopoly. Eventually the term was expanded still further to include the returns on similar ownership claims. If the government gave a company the exclusive right to import a limited amount (a quota) of a good, such as sugar, then the extra return generated as a result of the ownership of those rights was called a "quota-rent."

Countries rich in natural resource are infamous for rent-seeking activities. It's far easier to get rich in these countries by gaining access to resources at favorable terms than by producing wealth. This is often a negative-sum game, which is one of the reasons why, on average, such countries have grown more slowly than comparable countries without the bounty of such resources.[14]

Even more disturbing, one might have thought that an abundance of resources could be used to help the poor, to ensure access to education and health care for all. Taxing work and savings can weaken incentives; in contrast, taxing the "rents" on land, oil, or other natural resources won't make them disappear. The resources will still be there to be taken out, if not today, then tomorrow. There are no adverse incentive effects. That means that, in principle, there should be ample revenues to finance both social expenditures and public investments—in, say, health and education. Yet, among the countries with the greatest inequality are those with the most natural resources. Evidently, a few within these countries are better at rent seeking than others (usually those with political power), and they ensure that the benefits of the resources accrue largely to themselves. In Venezuela, the richest oil producer in Latin America, half of the country lived in poverty prior to the rise of Hugo Chavez—and it is precisely this type of poverty in the midst of riches that gives rise to leaders like him.[15]

Rent-seeking behavior is not just endemic in the resource-rich countries of the Middle East, Africa, and Latin America. It has also become endemic in modern economies, including our own. In those economies, it takes many forms,

some of which are closely akin to those in the oil-rich countries: getting state assets (such as oil or minerals) at below fair-market prices. It's not hard to become wealthy if the government sells you for $500 million a mine that's worth $1 billion.

Another form of rent seeking is the flip side: selling to government products at *above* market prices (noncompetitive procurement). The drug companies and military contractors excel in this form of rent seeking. Open government subsidies (as in agriculture) or hidden subsidies (trade restrictions that reduce competition or subsidies hidden in the tax system) are other ways of getting rents from the public.

Not all rent seeking uses government to extract money from ordinary citizens. The private sector can excel on its own, extracting rents from the public, for instance, through monopolistic practices and exploiting those who are less informed and educated, exemplified by the banks' predatory lending. CEOs can use their control of the corporation to garner for themselves a larger fraction of the firms' revenues. Here, though, the government too plays a role, by not doing what it should: by not stopping these activities, by not making them illegal, or by not enforcing laws that exist. Effective enforcement of competition laws can circumscribe monopoly profits; effective laws on predatory lending and credit card abuses can limit the extent of bank exploitation; well-designed corporate governance laws can limit the extent to which corporate officials appropriate for themselves firm revenues.

By looking at those at the top of the wealth distribution, we can get a feel for the nature of this aspect of America's inequality. Few are inventors who have reshaped technology, or scientists who have reshaped our understandings of the laws of nature. Think of Alan Turing, whose genius provided the mathematics underlying the modern computer. Or of Einstein. Or of the discoverers of the laser (in which Charles Townes played a central role),[16] or John Bardeen, Walter Brattain, and William Shockley, the inventors of transistors.[17] Or of Watson and Crick, who unraveled the mysteries of DNA, upon which rests so much of modern medicine. None of them, who made such large contributions to our well-being, are among those most rewarded by our economic system.

Instead, many of the individuals at the top of the wealth distribution are, in one way or another, geniuses at business. Some might claim, for instance, that Steve Jobs or the innovators of search engines or social media were, in their way, geniuses. Jobs was number 110 on the *Forbes* list of the world's wealthiest billionaires before his death, and Mark Zuckerberg was 52. But many of these "geniuses" built their business empires on the shoulders of giants, such as Tim Berners-Lee, the inventor of the World Wide Web, who has never appeared on the *Forbes* list. Berners-Lee could have become a billionaire but chose not to—he made his idea available freely; which greatly speeded up the development of the Internet.[18]

A closer look at the successes of those at the top of the wealth distribution shows that more than a small part of their genius resides in devising better ways of exploiting market power and other market imperfections—and, in many cases, finding better ways of ensuring that politics works for them rather than for society more generally.

We've already commented on financiers, who make up a significant portion of the top 1 or 0.1 percent. While some gained their wealth by producing value, others did so in no small part by one of the myriad forms of rent seeking that we described earlier. At the top, in addition to the financiers, whom we have already discussed,[19] are the monopolists and their descendants who, through one mechanism or another, have succeeded in achieving and sustaining market dominance. After the railroad barons of the nineteenth century came John D. Rockefeller and Standard Oil. The end of the twentieth century saw Bill Gates and Microsoft's domination of the PC software industry.

Internationally, there is the case of Carlos Slim, a Mexican businessman who was ranked by *Forbes* as the wealthiest person in the world in 2011.[20] Thanks to his dominance of the telephone industry in Mexico, Slim is able to charge prices that are a multiple of those in more competitive markets. He made his breakthrough when he was able to acquire a large share in Mexico's telecommunications system after the country privatized it,[21] a strategy that lies behind many of the world's great fortunes. As we've seen, it's easy to get rich by getting a state asset at a deep discount. Many of Russia's current oligarchs, for example, obtained their initial wealth by buying state assets at below-market prices and then ensuring continuing profits through monopoly power. (In America most of our government giveaways tend to be more subtle. We design rules for, say, selling government assets that are in effect partial giveaways, but less transparently so than what Russia did.)[22]

... [A]nother important group of the very wealthy [are] corporate CEOs, such as Stephen Hemsley from UnitedHealth Group, who received $102 million in 2010, and Edward Mueller from Qwest Communications (now CenturyLink, after a merger in 2011), who made $65.8 million.[23] CEOs have successfully garnered a larger and larger fraction of corporate revenues.[24] As we'll explain later, it is not a sudden increase in their productivity that allowed these CEOs to amass such riches in the last couple of decades but rather an enhanced ability to take more from the corporation that they are supposed to be serving, and weaker qualms about, and enhanced public toleration of, doing so.

A final large group of rent seekers consists of the top-flight lawyers, including those who became wealthy by helping others engage in their rent seeking in ways that skirt the law but do not (usually) land them in prison. They help write the complex tax laws in which loopholes are put, so their clients can avoid taxes, and they then design the complex deals to take advantage of these loopholes. They helped design the complex and nontransparent derivatives market. They help design the contractual arrangements that generate monopoly power; seemingly within the law. And for all this assistance in making our markets work not the way markets should but as instruments for the benefit of those at the top, they get amply rewarded.[25]

Monopoly Rents: Creating Sustainable Monopolies

To economists large fortunes pose a problem. The laws of competition, as I have noted, say that profits (beyond the normal return to capital) are supposed to be driven to zero, and quickly. But if profits are zero, how can fortunes be built? Niches in which there isn't competition, for one reason or another, offer one

avenue.[26] But that goes only a little way to explaining sustainable excessive profits (beyond the competitive level). Success will attract entry, and profits will quickly disappear. The real key to success is to make sure that there won't ever be competition—or at least there won't be competition for a long enough time that one can make a monopoly killing in the meanwhile. The simplest way to a sustainable monopoly is getting the government to give you one. From the seventeenth century to the nineteenth, the British granted the East India Company a monopoly on trade with India.

There are other ways to get government-sanctioned monopolies. Patents typically give an inventor a monopoly over that innovation for a temporary period, but the details of patent law can extend the length of the patent, reduce entry of new firms, and enhance monopoly power. America's patent laws have been doing exactly that. They are designed not to maximize the pace of innovation but rather to maximize rents.[27]

Even without a government grant of monopoly, firms can create entry barriers. A variety of practices discourage entry, such as maintaining excess capacity, so that an entrant knows that, should he enter, the incumbent firm can increase production, lowering prices to the point that entry would be unprofitable.[28] In the Middle Ages, guilds successfully restricted competition. Many professions have continued that tradition. Although they argue that they are simply trying to maintain standards, restrictions on entry (limiting the number of places at medical school or restricting migration of trained personnel from abroad) help keep incomes high.[29]

At the turn of the previous century, concern about the monopolies that formed the basis of many of the fortunes of that period, including Rockefeller's, grew so great that under the trust-busting president Theodore Roosevelt, America passed a slew of laws to break up monopolies and prevent some of these practices. In the years that followed, numerous monopolies were broken up—in oil, cigarettes, and many other industries.[30] And yet today, as we look around the American economy, we can see many sectors, including some that are central to its functioning, where one or a few firms dominate—such as Microsoft in PC operating systems, or AT&T, Verizon, T-Mobile, and Sprint in telecommunications.

Three factors contributed to this increased monopolization of markets. First, there was a battle over ideas about the role that government should take in ensuring competition. Chicago school economists (like Milton Friedman and George Stigler) who believe in free and unfettered markets[31] argued that markets are naturally competitive[32] and that seemingly anticompetitive practices really enhance efficiency. A massive program to "educate"[33] people, and especially judges, regarding these new doctrines of law and economics, partly sponsored by right-wing foundations like the Olin Foundation, was successful. The timing was ironic: American courts were buying into notions that markets were "naturally" competitive and placing a high burden of proof on anyone claiming otherwise just as the economics discipline was exploring theories that explain why markets often were *not* competitive, even when there were seemingly many firms. For instance, a new and powerful branch of economics called game theory explained how collusive behavior could be maintained tacitly over extended periods of time. Meanwhile, new theories of imperfect and asymmetric information

showed how information imperfections impaired competition, and new evidence substantiated the relevance and importance of these theories.

The influence of the Chicago school should not be underestimated. Even when there are blatant infractions—like predatory pricing, where a firm lowers its price to force out a competitor and then uses its monopoly power to raise prices—they've been hard to prosecute.[34] Chicago school economics argues that markets are presumptively competitive and efficient. If entry were easy, the dominant firm would gain nothing from driving out a rival, because the firm that is forced out would be quickly replaced by another firm. But in reality entry is not so easy, and predatory behavior does occur.

A second factor giving rise to increased monopoly is related to changes in our economy. The creation of monopoly power was easier in some of the new growth industries. Many of these sectors were marked by what are called network externalities. An obvious example is the computer operating system: just as it's very convenient for everyone to speak the same language, it's very convenient for everyone to use the same operating system. Increasing interconnectivity across the world naturally leads to standardization. Those with a monopoly over the standard that is chosen benefit.

As we have noted, competition naturally works against the accumulation of market power. When there are large monopoly profits, competitors work to get a share. That's where the third factor that has increased monopoly power in the United States comes in: businesses found new ways of resisting entry, of reducing competitive pressures. Microsoft provides the example par excellence. Because it enjoyed a near-monopoly on PC operating systems, it stood to lose a lot if alternative technologies undermined its monopoly. The development of the Internet and the web browser to access it represented just such a threat. Netscape brought the browser to the market, building on government-funded research.[35] Microsoft decided to squelch this potential competitor. It offered its own product, Internet Explorer, but the product couldn't compete in the open market. The company decided to use its monopoly power in PC operating systems to make sure that the playing field was not level. It deployed a strategy known as FUD (fear, uncertainty, and doubt), creating anxiety about compatibility among users by programming error messages that would randomly appear if Netscape was installed on a Windows computer. The company also did not provide the disclosures necessary for full compatibility as new versions of Windows were developed. And most cleverly, it offered Internet Explorer at a zero price—free, bundled in as part of its operating system. It's hard to compete with a zero price. Netscape was doomed.[36]

It was obvious that selling something at a zero price was not a profit-maximizing strategy—in the short run. But Microsoft had a vision for the long run: the maintenance of its monopoly. For that, it was willing to make short-run sacrifices. It succeeded, but so blatant were its methods that courts and tribunals throughout the world charged it with engaging in anticompetitive practices. And yet, in the end, Microsoft won—for it realized that in a network economy, a monopoly position, once attained, is hard to break. Given Microsoft's dominance of the operating system market, it had the incentives and capabilities to dominate in a host of other applications.[37]

No wonder, then, that Microsoft's profits have been so enormous—an average of $7 billion per year over the last quarter century, $14 billion over the past ten years, increasing in 2011 to $23 billion[38]—and reaping wealth for those who bought shares early enough. The conventional wisdom has it that in spite of its dominant position and huge resources, Microsoft has not been a real innovator. It did not develop the first widely used word processor, the first spreadsheet, the first browser, the first media player, or the first dominant search engine. Innovation lay elsewhere. This is consistent with theory and historical evidence: monopolists are not good innovators.[39]

Looking at the U.S. economy, we see in many sectors large numbers of firms, and therefore infer that there must be competition. But that's not always the case. Take the example of banks. While there are hundreds of banks, the big four share between them almost half of the country's banking assets,[40] a marked increase from the degree of concentration fifteen years ago. In most smaller communities, there are at most one or two. When competition is so limited, prices are likely to be far in excess of competitive levels.[41] That's why the sector enjoys profits estimated to be more than $115 billion a year, much of which is passed along to its top officials and other bankers—helping create one of the major sources of inequality at the top.[42] In some products, such as over-the-counter credit default swaps (CDSes), four or five very large banks totally dominate, and such market concentration always gives rise to the worry that they collude, albeit tacitly. (But sometimes the collusion is not even tacit—it is explicit. The banks set a critical rate, called the London Interbank Offered Rate, or Libor. Mortgages and many financial products are linked to Libor. It appears that the banks worked to rig the rate, enabling them to make still more money from others who were unaware of these shenanigans.)

Of course, even when laws that prohibit monopolistic practices are on the books, these have to be enforced. Particularly given the narrative created by the Chicago school of economics, there is a tendency not to interfere with the "free" workings of the market, even when the outcome is anticompetitive. And there are good political reasons not to take too strong a position: after all, it's antibusiness—and not good for campaign contributions—to be too tough on, say, Microsoft.[43]

Politics: Getting to Set the Rules and Pick the Referee

It's one thing to win in a "fair" game. It's quite another to be able to write the rules of the game—and to write them in ways that enhance one's prospects of winning. And it's even worse if you can choose your own referees. In many areas today, regulatory agencies are responsible for oversight of a sector (writing and enforcing rules and regulations)—the Federal Communications Commission (FCC) in telecom; the Securities and Exchange Commission (SEC) in securities; and the Federal Reserve in many areas of banking. The problem is that leaders in these sectors use their political influence to get people appointed to the regulatory agencies who are sympathetic to their perspectives.

Economists refer to this as "regulatory capture."[44] Sometimes the capture is associated with pecuniary incentives: those on the regulatory commission come

from and return to the sector that they are supposed to regulate. Their incentives and those of the industry are well aligned, even if their incentives are not well aligned with those of the rest of society. If those on the regulatory commission serve the sector well, they get well rewarded in their post-government career.

Sometimes, however, the capture is not just motivated by money. Instead, the mindset of regulators is captured by those whom they regulate. This is called "cognitive capture," and it is more of a sociological phenomenon. While neither Alan Greenspan nor Tim Geithner actually worked for a big bank before coming to the Federal Reserve, there was a natural affinity, and they may have come to share the same mindset. In the bankers' mindset—despite the mess that the bankers had made—there was no need to impose stringent conditions on the banks in the bailout.

The bankers have unleashed enormous numbers of lobbyists to persuade any and all who play a role in regulation that they should not be regulated—an estimated 2.5 for every U.S. representative.[45] But persuasion is easier if the target of your efforts begins from a sympathetic position. That is why banks and their lobbyists work so strenuously to ensure that the government appoints regulators who have already been "captured" in one way or another. The bankers try to veto anyone who does not share their belief. I saw this firsthand during the Clinton administration, when potential names for the Fed were floated, some even from the banking community. If any of the potential nominees deviated from the party line that markets are self-regulating and that the banks could manage their own risk—there arose a hue and cry so great that the name wouldn't be put forward or, if it was put forward, that it wouldn't be approved.[46]

Government Munificence

We've seen how monopolies—whether government granted or government "sanctioned," through inadequate enforcement of competition laws—have built the fortunes of many of the world's wealthiest people. But there is another way to get rich. You can simply arrange for the government to hand you cash. This can happen in myriad ways. A little-noticed change in legislation, for example, can reap billions of dollars. This was the case when the government extended a much-needed Medicare drug benefit in 2003.[47] A provision in the law that prohibited government from bargaining for prices on drugs was, in effect, a gift of some $50 billion or more per year to the pharmaceutical companies.[48] More generally, government procurement—paying prices well above costs—is a standard form of government munificence.

Sometimes gifts are hidden in obscure provisions of legislation. A provision of one of the key bills deregulating the financial derivative market—ensuring that no regulator could touch it, no matter how great the peril to which it exposed the economy—also gave derivatives claims "seniority" in the event of bankruptcy. If a bank went under, the claims on the derivatives would be paid off before workers, suppliers, or other creditors saw any money—even if the derivatives had pushed the firm into bankruptcy in the first place.[49] (The derivatives market played a central role in the 2008–09 crisis and was responsible for the $150 billion bailout of AIG.)

There are other ways that the banking sector has benefited from government munificence, evident most clearly in the aftermath of the Great Recession. When the Federal Reserve (which can be thought of as one branch of the government) lends unlimited amounts of money to banks at near-zero interest rates, and allows them to lend the money back to the government (or to foreign governments) at much higher interest rates, it is simply giving them a hidden gift worth billions and billions of dollars.

These are not the only ways that governments spur the creation of enormous personal wealth. Many countries, including the United States, control vast amounts of natural resources like oil, gas, and mining concessions. If the government grants you the right to extract these resources for free, it doesn't take a genius to make a fortune. That is, of course, what the U.S. government did in the nineteenth century, when anyone could stake a claim to natural resources. Today, the government doesn't typically give away its resources; more often it requires a payment, but a payment that is far less than it should be. This is just a less transparent way of giving away money. If the value of the oil under a particular piece of land is $100 million after paying the extraction costs, and the government requires a payment of only $50 million, the government has, in effect, given away $50 million.

It doesn't have to be this way, but powerful interests ensure that it is. In the Clinton administration, we tried to make the mining companies pay more for the resources they take out of public lands than the nominal amounts that they do. Not surprisingly, the mining companies—and the congressmen to whom they make generous contributions—opposed these measures, and successfully so. They argued that the policy would impede growth. But the fact of the matter is that, with an auction, companies will bid to get the mining rights so long as the value of the resources is greater than the cost of extraction, and if they win the bid, they will extract the resources. Auctions don't impede growth; they just make sure that the public gets paid appropriately for what is theirs. Modern auction theory has shown how changing the design of the auction can generate much more revenue for the government. These theories were tested out in the auction of the spectrum used for telecommunications beginning in the 1990s, and they worked remarkably well, generating billions for the government.

Sometimes government munificence, instead of handing over resources for pennies on the dollar, takes the form of rewriting the rules to boost profits. An easy way to do this is to protect firms from foreign competition. Tariffs, taxes paid by companies abroad but not by domestic firms, are in effect a gift to domestic producers. The firms demanding protection from foreign competition always provide a rationale, suggesting that society as a whole is the beneficiary and that any benefits that accrue to the companies themselves are incidental. This is self-serving, of course, and while there are instances in which such pleas contain some truth, the widespread abuse of the argument makes it hard to take seriously. Because tariffs put foreign producers at a disadvantage, they enable domestic firms to raise their prices and increase their profits. In some cases, there may be some incidental benefits such as higher domestic employment and the opportunity for companies to invest in R&D that will increase productivity and competitiveness. But just as often, tariffs protect old and tired industries that have lost their competitiveness and are not likely to regain it, or occasionally those that have made bad bets on new technologies and would like to postpone facing competition.

The ethanol subsidy offers an example of this phenomenon. A plan to reduce our dependence on oil by replacing it with the energy of the sun embedded in one of America's great products, its corn, seemed irresistible. But converting plant energy into a form that can provide energy for cars instead of people is hugely expensive. It is also easier to do with some plants than others. So successful has Brazil's research on sugar-based ethanol been that in order for America to compete, for years it had to tax Brazilian sugar-based ethanol 54 cents a gallon.[50] Forty years after the introduction of the subsidy, it was still in place to support an infant technology that seemingly would not grow up. When oil prices fell after the 2008 recession, many ethanol plants went bankrupt, even with massive subsidies.[51] It wasn't until the end of 2011 that the subsidy and tariff were allowed to expire.

The persistence of such distortionary subsidies stems from a single source: politics. The main—and for a long while, effectively the only—*direct* beneficiary of these subsidies were the corn-ethanol producers, dominated by the megafirm Archer Daniels Midland (ADM). Like so many other executives, those at ADM seemed to be better at managing politics than at innovation. They contributed generously to both parties, so that as much as those in Congress might rail against such corporate largesse, lawmakers were slow to touch the ethanol subsidies.[52] As we've noted, firms almost always argue that the true beneficiaries of any largesse they receive lie elsewhere. In this case, ethanol advocates argued that the real beneficiaries were America's corn farmers. But that was, for the most part, not the case, especially in the early days of the subsidy.[53]

Of course, why American corn farmers, who were already the recipients of massive government handouts, receiving almost half of their income from Washington rather than from the "soil," should receive still further assistance is hard to understand, and hard to reconcile with principles of a free-market economy. (In fact, the vast preponderance of government money subsidizing agriculture does not go, as many believe, to poor farmers or even family farms. The design of the program reveals its true objective: to redistribute money from the rest of us to the rich and corporate farms.)[54]

Sadly, government munificence toward corporations does not end with the few examples we have given, but to describe each and every instance of government approved rent seeking would require another book.[55]

NOTES

1. That's one of the reasons that good stock market performance is no longer a good indicator of a healthy economy. Stocks can do well because wages are low and the Fed, worried about the economy, keeps interest rates at near zero.
2. Thucydides, *The Peloponnesian War*, trans. Richard Crawley (New York: Modern Library, 1951), p. 331 (book 5.89).

3. That's why the cases where those in power voluntarily give some of it up are so interesting. In some of them, it's because those in power have an understanding of their own long-term interests—and the long-term interests of those they are supposed to serve. That was the case, e.g., when the king of Bhutan, in 2007, insisted on converting his country into a constitutional monarchy. He had to persuade his citizens that that was the right course for them. The elites of nineteenth-century countries that extended education must have known that there was a risk that this would over the long run weaken their dominance of the political franchise; yet the short-term economic advantages of having a more educated workplace seem to have dominated the long-term political consequences. See François Bourguignon and Sébastien Dessus, "Equity and Development: Political Economy Considerations," pt. 1 of *No Growth without Equity?* ed. Santiago Levy and Michael Walton (New York: Palgrave Macmillan, 2009). Daron Acemoglu and James Robinson theorize that democratization is a way for ruling elites to commit to future redistribution, and thus avoid the extreme of revolution when faced with social unrest. If there is not sufficient strength in the rebellion, repression or temporary reform (or transfers) might suffice. Acemoglu and Robinson, *Economic Origins of Dictatorship and Democracy* (Cambridge: Cambridge University Press, 2006).
4. See Karl Polyani, *The Great Transformation* (New York: Rinehart, 1944). One of the theories developed in response to Marx was that of Nassau Senior, the first holder of the Drummond Chair at Oxford University, who argued that the return capitalists earned was compensation for their "abstinence" (i.e., saving, or *not consuming*).
5. The formalization of this idea is called the "first welfare theorem of economics." It asserts that under certain conditions—when markets work well—no one can be made better-off without making someone else worse-off. But, as we shall explain shortly, there are many instances in which markets do not work well. A recent popular analysis is Kaushik Basu, *Beyond the Invisible Hand: Groundwork for a New Economics* (Princeton: Princeton University Press, 2011). Basu uses the metaphor of a magic show to describe the way the discussion of economics on the political right draws attention to the conclusion of this theorem—that markets are efficient—and away from the very special and unrealistic conditions under which the conclusion holds—perfect markets. Like a good magician, a free-market economist succeeds by drawing spectators' attention to what he wants them to see—the rabbit jumping out of the hat—while distracting their attention from other things—how the rabbit got into the hat in the first place.
6. Adam Smith, *The Wealth of Nations* (1776; New York: P. F. Collier, 1902), p. 207.
7. See Carmen Reinhart and Kenneth Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton: Princeton University Press, 2009).
8. A derivative is just a financial instrument the return to which is *derived* on the basis of something else, e.g., the performance of a stock or the price of oil or the value of a bond. A few banks have profited enormously by keeping this market nontransparent, garnering for themselves an amount widely estimated at more than $20 billion a year.
9. On October 31, 2011, MF Global Holdings, a brokerage firm run by Jon Corzine, filed for bankruptcy protection in New York. It was the eighth-largest corporate bankruptcy in U.S. history and the biggest failure by a securities firm since Lehman Brothers Holdings Inc. filed for Chapter 11 in September 2008.
10. While there may be some debate about when taking advantage of information asymmetries is unethical (reflected in the maxim "caveat emptor," putting the obligation on the buyer to beware of the possibility of information asymmetries), there is no doubt that the banks stepped over the line.

11. This predatory behavior took a number of forms. One way was to charge *very* high interest rates, sometimes obfuscated by fees. The abolition of usury laws (which limit the interest rates lenders can charge) provided lenders greater scope for charging exorbitant interest rates; and lenders found ways of circumventing whatever regulations there were. Rent-a-Center claimed to be renting furniture; it was really selling furniture and simultaneously lending money—at extraordinarily high interest rates. Many states tried to circumscribe its activities, but it used its political influence (it had senior ex-politicians, including a former leader of the Republicans in the House of Representatives, on its board) to try to get federal preemption (whereby weaker federal rules preempt the rights of states to regulate). In 2006 Rent-a-Center (with nationwide revenues in excess of $2 billion) was successfully sued by the state of California for deceptive business practices. See http://oag.ca.gov/news/press_release?id=1391. Credit cards and payday loans provided other venues for predatory practices. Among many discussions, see, e.g., Robert Faris, "Payday Lending: A Business Model That Encourages Chronic Borrowing," *Economic Development Quarterly* 17, no. 1 (February 2003): 8–32; James H. Carr and Lopa Kolluri, *Predatory Lending: An Overview* (Washington, DC: Fannie Mae Foundation, 2001).
12. A well-performing financial sector is absolutely essential for a well-performing economy. It allocates capital, manages risk, and runs the payments mechanism. As I explain in *Freefall* (New York: Norton, 2010), in the run-up to the 2008–09 crisis, it did not perform these functions well. Part of the reason is that it was focused more on circumventing regulations and exploitive activities, like predatory lending. The negative-sum nature is reflected in the immense losses in the real estate sector. The financial sector likes to claim that it has been highly innovative, and that these innovations are at the root of the economy's overall success. But as Paul Volcker, former chairman of the Federal Reserve, pointed out, there is little evidence of any significant effect of these innovations on economic growth or societal well-being (with the exception of the ATM machine). But even if the financial sector had contributed slightly to the country's growth in the years before the crisis, the losses associated with the crisis more than offset any of these gains.
13. A recent study has shown that people of higher status/income have fewer qualms about breaking the rules, are more likely to be driven by self-interest, more likely to cheat, and more likely to behave in other ways that would generally be viewed as unethical. Paul K. Piff, Daniel M. Stancato, Stephane Cote, Rodolfo Menoza-Denton, and Dacher Keltner, "Higher Social Class Predicts Increased Unethical Behavior," *Proceedings of the National Academy of Sciences*, February 27, 2012. While what is "unfair" or "unethical" depends on "norms," and there may be disagreements about what is or is not fair, the experiment focused on situations where there would be broad consensus on what was fair or ethical. Similarly, much of the financial sector behavior that I criticize ... violates virtually any sense of "fairness" or "ethics."
14. This problem has come to be called the "natural resource curse." There are other reasons that such countries have not done well: managing natural resources can be difficult (prices fluctuate and exchange rates can become overvalued). For a recent review of some of the problems and how they can be addressed see *Escaping the Resource Curse*, ed. M. Humphreys, J. Sachs, and J. E. Stiglitz (New York: Columbia University Press, 2007). See also, e.g., Michael Ross, *The Oil Curse: How Petroleum*

Wealth Shapes the Development of Nations (Princeton: Princeton University Press, 2012); and idem, *Timber Booms and Institutional Breakdown in Southeast Asia* (New York: Cambridge University Press, 2001).

15. According to World Bank Indicators, 50 percent of the population was living under the national poverty line in 1998 before Chavez took office in 1999.
16. He shared the 1964 Nobel Prize in Physics with the Soviet scientists Nikolay Basov and Aleksandr Prokhorov for "fundamental work in the field of quantum electronics, which has led to the construction of oscillators and amplifiers based on the maser-laser principle."
17. They received the 1956 Nobel Prize in Physics "for their researches on semiconductors and their discovery of the transistor effect."
18. The World Wide Web Consortium he founded decided that its standards should be based on royalty-free technology, so that they could easily be adopted by anyone. Like Jobs, Bill Gates is often heralded as an innovator, but even though the adoption of his products is nearly universal now, that is due more to his business acumen—and near-monopoly of the market—than to the uniqueness of the technology he sells.
19. Bakija et al. found (p. 3) that "executives, managers, supervisors, and financial professionals account for about 60 percent of the top 0.1 percent of income earners in recent years, and can account for 70 percent of the increase in the share of national income going to the top 0.1 percent of the income distribution between 1979 and 2005." The composition of the top 1 percent in 2005 was 31 percent "Executives, managers, supervisors (non-finance)"; 15.7 percent "Medical," 13.9 percent "Financial professionals, including management," and 8.4 percent "Lawyers." The share of finance almost doubled over the period, rising from 7.7 percent in 1979 to 13.9 percent in 2005. (Nonfinance executives and medical fell slightly; lawyers increased marginally.) These statistics are based on an income measure that *excludes* capital gains. This is very important because about half of all capital gains accrue to the top 0.1 percent. For the top 400 income earners, 60 percent of their income is in the form of capital gains. J. Bakija, A. Cole, and B. T. Hein, "Jobs and Income Growth of Top Earners and the Causes of Changing Income Inequality: Evidence from U.S. Tax Return Data." See also comments by C. Rampell, "The Top 1%: Executives, Doctors and Bankers" *New York Times*, October 17, 2011, available at http://economix.blogs.nytimes.com/2011/10/17/the-top-1-executives-doctors-and-bankers/; and Laura D'Andrea Tyson, "Tackling Income Inequality," *New York Times*, November 18, 2011, available at http://economix.blogs.nytimes.com/2011/11/18/tackling-income-inequality/.
20. See *Forbes* World's Billionaires list at http://www.forbes.com/wealth/billionaires/; ranking is from 2011.
21. Slim's Grupo Carso, France Telecom, and Southwestern Bell paid $1.7 billion in December 1990 to acquire "a controlling 20.4 percent stake in Telmex, which includes 51 percent of the votes in the company." See Keith Bradsher, "Regulatory Pitfall in Telmex Sale," *New York Times*, December 7, 1990, available at http://www.nytimes.com/1990/12/27/business/talking-deals-regulatory-pitfall-in-telmex-sale.html?scp=1&sq=telmex%20southwestern%20bell%201990&st=cse (accessed March 3, 2012).
22. In the midnineties, Russia borrowed large amounts of money from the private sector, putting up shares in its oil and natural resource companies as collateral. But it was all a ruse to turn over state assets to the oligarchs. This was called "loans for shares." See Chrystia Freeland, *Sale of the Century: Russia's Wild Ride from Communism to Capitalism* (New York: Crown Business, 2000). A variety of specious arguments are often put forward for these privatizations. Most recently, Greece has been pushed to privatize, as a condition for getting assistance from Europe and the IMF. For a discussion of privatization and the arguments used for it ... and J. E. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (New York: Norton, 2012), and J. E. Stiglitz, *Globalization and Its Discontents* (New York: Norton, 2002). Not every country and not every privatization has suffered from transferring state assets to private parties at below fair market prices. Many believe that the privatizations in the UK under Margaret Thatcher, with shares publicly floated and with the number of shares any one person or company could buy strictly limited, were conducted deliberately in a manner to avoid such outcomes.

23. See *Forbes* America's Highest Paid Chief Executives 2011, available at http://www.forbes.com/lists/2011/12/ceo-compensation-11_land.html.
24. This is obviously a controversial claim: the CEOs might argue that in fact they receive but a small fraction of what they contribute to shareholder value. But ... the so-called incentive structures are poorly designed, providing little link between that part of the increase in market value that is attributable to the efforts of the CEO and that which is the result of broader market forces—lower costs of inputs or higher stock market prices in general. Some studies have suggested, moreover, that once total compensation is taken into account (including adjustments of bonuses when the stock market doesn't do well), there is little relationship between firm performance and compensation. For a broader discussion of this issue, see J. E. Stiglitz, *Roaring Nineties* (New York: W. W. Norton, 2003); and especially Lucian Bebchuk and Jesse Fried, *Pay without Performance: The Unfulfilled Promise of Executive Compensation* (Cambridge: Harvard University Press, 2004).
25. Still one more group is real estate moguls, who benefit from special provisions of the tax code and often get rents as a result of local government variances in zoning laws.
26. These are sometimes called natural monopolies. They include the examples given earlier where network externalities are very large.
27. The advocates of stronger intellectual property rights, of course, claim otherwise. Interestingly, in the United States many of the most innovative firms, those in Silicon Valley, have been among those opposing certain proposals by those in the drug and entertainment industries to strengthen intellectual property rights. Recent revisions of patent law arguably gave large corporations an advantage over new firms, illustrating the fact ... that there are strong distributive consequences of any legal framework. For a discussion of how our current intellectual property framework may actually inhibit innovation, see J. E. Stiglitz, *Making Globalization Work* (New York: Norton, 2006), and Claude Henry and J. E. Stiglitz, "Intellectual Property, Dissemination of Innovation, and Sustainable Development," *Global Policy* 1, no. 1 (October 2010): 237–51.
28. See, e.g., A. Dixit, "The Role of Investment in Entry-Deterrence," *Economic Journal* 90, no. 357 (March 1980): 95–106; and J. Tirole and D. Fudenberg, "The Fat Cat Effect, the Puppy Dog Ploy and the Lean and Hungry Look," *American Economic Review* 74 (1984): 361–68. The practices Microsoft used to rid itself of its rivals (described below) also helped prevent entry of new competitors.
29. It's clear that one wants standards; one doesn't want to be operated on by an unqualified doctor. But, for instance, the supply of qualified doctors could have been increased simply by increasing the number of places in medical school.

30. In 1890 Congress passed the Sherman Anti-Trust Act, and its enforcement speeded up in the twentieth century. In 1911 the Supreme Court ordered the dissolution of the Standard Oil Company and the American Tobacco Company, which brought down the two powerful industrial trusts. In 1984 the Court broke up AT&T's monopoly following *United States v. AT&T*. See Charles R. Geisst, *Monopolies in America: Empire Builders and Their Enemies from Jay Gould to Bill Gates* (New York: Oxford University Press, 2000).
31. The term "Chicago school" is often applied to this group of economists, partially because the high priest of this religion, Milton Friedman (and many of his acolytes), taught at the University of Chicago. But it should be understood that many at that great university are not devotees of this school of thought, and that there are many devotees in other universities around the world. The term has, however, become a commonly used shorthand.
32. One group even went so far as to argue that markets will behave competitively even if there is only one firm, so long as there is potential competition. This argument played an important role in airline deregulation, where it was contended that even if there was only one airline on a given route, it would be disciplined from charging monopoly prices by the threat of entry. Both theory and experience have shown that this argument is wrong, so long as there are sunk costs (costs that won't be recovered if a firm enters and subsequently leaves), no matter how small those costs. See Joseph Farrell, "How Effective Is Potential Competition?," *Economics Letters* 20, no. 1 (1986): 67–70; J. E. Stiglitz, "Technological Change, Sunk Costs, and Competition," *Brookings Papers on Economic Activity* 3 (1987), pp. 883–947; and P. Dasgupta and J. E. Stiglitz, "Potential Competition, Actual Competition, and Economic Welfare," *European Economic Review* 32, nos. 2–3 (March 1988): 569–77.
33. For discussion and examples of conservative foundations' contribution to the Chicago school law and economics programs, see Alliance for Justice, *Justice for Sale: Shortchanging the Public Interest for Private Gain* (Washington, DC: Alliance for Justice, 1993).
34. The Department of Justice brought a case against American Airlines in the early years of this century. I thought the evidence that American Airlines had engaged in predatory behavior was especially compelling, but the judge didn't need to look at the evidence: the Supreme Court had ruled that there was just too strong a presumption *against* the existence of predatory pricing to make prosecution possible.
35. One of Netscape's founders, Marc Andreessen, was part of the team at the University of Illinois at Urbana-Champaign that developed Mosaic, the first widely used web browser, which was a project of the university's National Center for Supercomputing Applications (one of the original sites of the National Science Foundation's Supercomputer Centers Program). See the website of the NCSA, http://www.ncsa.illinois.edu/Projects/mosaic.html (accessed March 3, 2012); and John Markoff, "New Venture in Cyberspace by Silicon Graphics Founder," *New York Times*, May 7, 1994, available at http://www.nytimes.com/1994/05/07/business/new-venture-in-cyberspace-by-silicon-graphics-founder.html?ref=marcandreessen (accessed March 3, 2012).
36. For an overview of the Microsoft case, see Geisst, *Monopolies in America*.
37. See Steven C. Salop and R. Craig Romaine, "Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft," *George Mason Law Review* 4, no. 7 (1999): 617–1055.
38. See Microsoft's annual report.

39. As the late Oxford professor and Nobel Prize winner John Hicks said, "The best of all monopoly profits is a quiet life." J. R. Hicks, "Annual Survey of Economic Theory: The Theory of Monopoly," *Econometrica* 1, no. 8 (1935). Kenneth Arrow pointed out that because monopolists restrict production, the saving they get from reducing costs is diminished. See Arrow, "Economic Welfare and the Allocation of Resources for Invention," in *The Rate and Direction of Inventive Activity: Economic and Social Factors* (Princeton: Princeton University Press, 1962), pp. 609–26. Monopolies, of course, don't last forever: new technologies and the open-source movement are already beginning to challenge Microsoft's dominance.
40. Calculated by total assets of commercial banks, as of September 3, 2011. See FDIC Statistics on Banking, available at http://www2.fdic.gov/SDI/SOB/index.asp; and Federal Reserve Statistical Release Large Commercial Banks, available at http://www.federalreserve.gov/releases/lbr/current/default.htm.
41. Moreover, banks don't compete on price for the services they offer. If you want to do a merger or acquisition, every major bank charges the same percentage fee. When takeovers were hundreds of millions of dollars, the resulting charges were large; when they became billions, charges became astronomical, for essentially the same amount of work by the same number of people.
42. From 2010 Q4 to 2011 Q3 (the most recently available year), FDIC-insured institutions made an aggregate profit of $115 billion. ... But these numbers don't really capture the magnitude of bank profits, since they are the profits after paying out the mega-bonuses to the executives, which can push compensation at some firms above 50 percent of revenues after other costs have been taken out, i.e., the "true" profits may be as much as double the above number. The *profits and bonuses* of the banking sector exceed 1 percent of the country's entire national output. Such numbers lead many to conclude that the financial sector, which is supposed to be the servant of the rest of the economy, has become its master.
43. Microsoft tried to exert political influence through a variety of channels. It has made campaign contributions of $13,516,304 from 1999 to present. See campaignmoney.com, compiled from campaign finance reports and data disclosed by Federal Election Commission, lists of contribution available at http://www.campaignmoney.com/Microsoft.asp?pg=88 (accessed March 6, 2012). The remedies put forward by President Bush's Justice Department in response to Microsoft's conviction on anticompetitive behavior were mild and did not effectively curtail its market power. See, e.g., Andrew Chin's account of the outcome of *United States v. Microsoft Corp.*: "Decoding Microsoft: A First Principles Approach," *Wake Forest Law Review* 40, no. 1 (2005):1–157. In the case of antitrust laws, there's a partial remedy for the absence of effective public enforcement: private antitrust action (which was introduced because of worries about the willingness of public authorities to take enforcement action).
44. The late Nobel Prize-winning economist George Stigler wrote extensively about this. See, e.g., Stigler, "The Economic Theory of Regulation," *Bell Journal of Economics* 11 (1971): 3–21.
45. Data from the OpenSecrets.org, a website of the Center for Responsive Politics, counting lobbyists for commercial banks, finance, and credit companies. When all lobbyists are counted in the finance, insurance, and real estate industries, the number balloons to nearly five per congressman. See http://www.opensecrets.org/lobby/indus.php?id=F&year=a (accessed March 24, 2012).

46. The latest instance was the veto by the Senate Banking Committee chairman of the nomination of Nobel Prize-winning economist Peter Diamond. Diamond would have provided a critical voice on some of the doctrines that prevail among some of the governors. (Diamond was first nominated to the Fed by President Obama in April 2010; he was renominated in September and again in January 2011, after Senate Republicans blocked a floor vote on his confirmation. On June 5, 2011, Diamond withdrew his nomination, ending a fourteen-month nomination effort resisted by Senator Richard Shelby of Alabama, who, with party colleagues repeatedly criticized Diamond for supporting the central bank's monetary stimulus. Diamond responded that his opponents failed to appreciate that understanding the determinants of unemployment is essential to effective monetary policy.)
47. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003.
48. The economist Dean Baker's research shows that $332 billion could be saved between 2006 and 2013 (around $50 billion a year) in the most conservative high-cost scenario, if Medicare were allowed to negotiate prices; in the middle-cost scenario, $563 billion could be saved for the same budget window. See Baker, *The Savings from an Efficient Medicare Prescription Drug Plan* (Washington, DC: Center for Economic and Policy Research, January 2006).
49. It is estimated that four banks in the United States take home a windfall of some $20 billion a year in derivatives.
50. The market for ethanol was distorted in other ways—such as ethanol requirements and subsidies for gasoline refiners who blended gasoline with ethanol—most of which came from America's corn producers. See the 2010 CBO study "Using Biofuel Tax Credits to Achieve Energy and Environmental Policy Goals," available at http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/114xx/doc11477/07-14-biofuels.pdf (accessed March 2, 2012); and "The Global Dynamics of Biofuel," Brazil Institute Special Report, April 2007, issue no. 3, available at http://www.wilsoncenter.org/sites/default/files/Brazil_SR_e3.pdf (accessed March 2, 2012).
51. Congress finally allowed the subsidy to expire at the end of 2011.
52. Famously, ADM was fined a then-record $100 million for lysine price fixing in 1997, a result of a lengthy federal investigation that also led to convictions and prison time for three executives. (This became a book by Kurt Eichenwald and then a 2009 movie starring Matt Damon, *The Informant.*)
53. In the early days of corn-based ethanol, this was flatly wrong: the demand for corn by ethanol producers was so low that the corn farmers received almost no benefit from the subsidy. Because usage of corn for ethanol production was such a small fraction of global supply, it had a negligible effect on corn prices. ADM and other ethanol producers were the true beneficiaries.
54. The U.S. government paid a total of $261.9 billion for agriculture subsidies from 1995 to 2010. According to USDA, 63 percent of farms do not receive any payments. Among those payments, a large chunk (62 percent in 2009) goes to large-scale commercial farms (with gross annual sales of $250,000 or more). Between 1995 and 2010, the top 10 percent of farms received $30,751 average per year, while the bottom 80 percent of farms received $587 average per year. See USDA Economic Research Service, "Farm Income and Cost: Farms Receiving Government Payments," available at http://www.ers.usda.gov/Briefing/FarmIncome/govtpaybyfarmtype.htm; Environmental Working Group, Farm Subsidy Database, available at http://farm.ewg.org/region.php.

55. And indeed, many books have been written on the subject. See, e.g., Glenn Parker, *Congress and the Rent-Seeking Society* (Ann Arbor: University of Michigan Press, 1996).

QUESTIONS FOR MAKING CONNECTIONS WITHIN THE READING

1. Writing at a time when most Americans praise free markets uncritically, Stiglitz challenges a number of beliefs about the wisdom of the "invisible hand." He argues, for example, that competition tends to drive profits down, not up. He suggests that manufacturers typically try to protect profit margins by banding together to create monopolies. He alleges that investors often destroy wealth instead of increasing it. He even claims that "markets by themselves often fail to produce efficient and desirable outcomes." Choose one argument that challenges our current common sense about free markets and explain Stiglitz's reasoning. Consider as well the role he appears to think that markets should be allowed to play.
2. Why does Stiglitz see rent seeking as destructive? Who benefits from rent seeking? What are its economic consequences, and why? What does he see as its impact on society, and what is the relationship between economics and social life in general? Why is Stiglitz skeptical about the power of the market to correct itself? Would it be fair to say that the problem of rent seeking can be solved only by political means—that is, through government intervention? Why has government failed to intervene, and what steps does Stiglitz recommend to restore a balance between outcomes and opportunities?
3. Early in his argument about inequality Stiglitz includes a short historical overview, beginning with the once widespread belief that wealth and poverty are divinely ordained. Once a "vast urban underclass" had arisen in the wake of the Industrial Revolution, "it became imperative," Stiglitz writes, "to find new justifications for inequality." What justifications have become the most compelling ones in our time? Is Stiglitz opposed to inequality, or does he regard it as a problem that society will never fully solve? Does he regard it as a problem at all?

QUESTIONS FOR WRITING

1. What does Stiglitz see as the purpose of wealth? Although he never explicitly develops an answer to that question, his entire argument implies a set of commitments about the purposes that wealth-creation should serve. Does he believe that the purpose of wealth is to lift the wealth-creators above the rest? Does he believe that wealth should offer a reward to the hardest-working, while poverty should serve as punishment to motivate lazy people? Or does he see wealth as a means for improving our society as a whole?

Does Stiglitz believe that a society's wealth belongs in some sense to all its members? On what grounds does he argue that the government should redistribute wealth?

2. Stiglitz discusses how the economy is controlled by rent-seekers at the top who dictate laws and policies to the public. How does the top-down organization Stiglitz describes compare to Steven Johnson's system of organized complexity? How do systems like the one Stiglitz analyzes become established and how might they be dismantled through bottom-up shifts in the patterns that currently exist? How can Johnson's explanation of the power of patterns and systems to "self-organize" complicate, contradict, or confirm Stiglitz's conclusion about the power of the free-market economy?

QUESTIONS FOR MAKING CONNECTIONS BETWEEN READINGS

1. Bringing Stiglitz together with Maggie Nelson's "Great to Watch," consider the relationship between the arts and inequality. Nelson never refers to economics, and Stiglitz never mentions the world of art, but this question asks you to explore possible connections between them. In what ways does the art world challenge the values of a market society? In what ways does it reinforce social distinctions between "high" and "low" culture—between the cultural "haves" and "have nots"? Does the violence of the avant-garde liberate or intimidate? Consider what Nelson tells us about the trend among artists to respond to middle class "banality" by inflicting on their audience an experience of "brutal, sensory overload." What relation does this strategy establish between artists and their public? In what other areas of life, aside from art, is "sensory overload" a problem?
2. Stiglitz discusses how the economy is controlled by rent-seekers at the top who dictate laws and policies to the public. How does the top-down organization that Stiglitz describes compare to Steven Johnson's system of organized complexity? How do systems like the one Stiglitz analyzes become established, and how might they be dismantled through bottom-up initiatives? How might Johnson's explanation of the power of systems to "self-organize" complicate, contradict, or confirm Stiglitz's conclusion about the power of the free market economy?