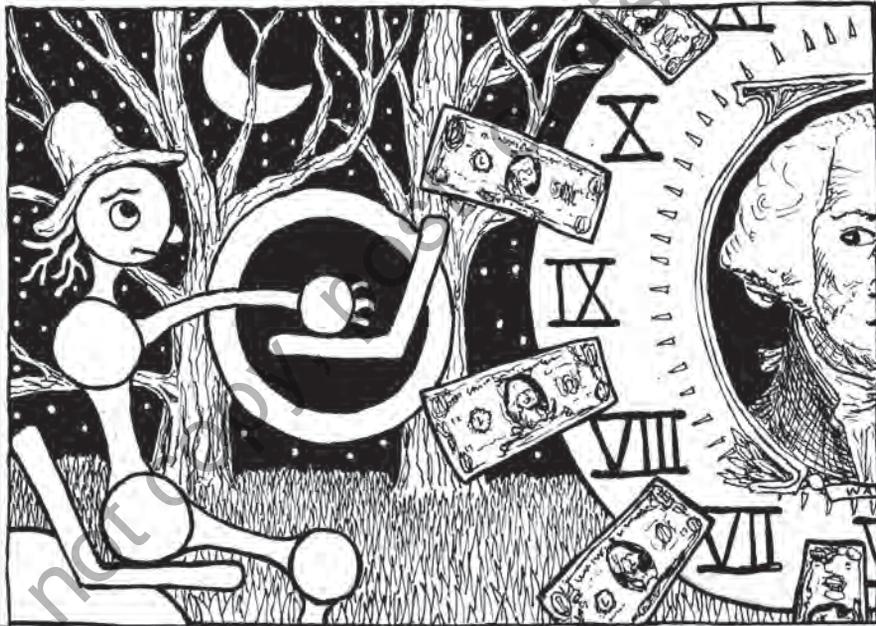


CHAPTER 3

Money and Markets



Americans, there is a danger that you will misuse your Capitalism. I still contend that money can be the root of all evil. It can cause one to live a life of gross materialism. I am afraid that many among you are more concerned about making a living than making a life.

—Dr. Martin Luther King, Jr., sermon delivered at Dexter Avenue Baptist Church in Montgomery, Alabama, November 4, 1956

“Loka, how are you doing with your sales? Are you making it okay?” John, an organic vegetable farmer, asked worriedly. Already, he had encouraged his own Community Supported Agriculture (CSA) members to buy Loka and Jason’s grass-fed, pasture-raised beef. He could be thanked for 30 percent of their sales.

“We’re doing okay,” Loka replied. “We covered our costs and made a bit of money.” It was their first year trying out direct marketing, and it was tough. They paid more for butchering at a local, family-owned business—much more expensive than the massive facilities that kill thousands of animals a day conveyor-belt style, with often underpaid, and sometimes illegal, immigrant labor. Checking the mother cows and their calves every morning, along with the steers they fed out for sale, took Jason and Loka a lot of time—much more time than the massive feedlots where animals are confined in a small space, sometimes knee deep in manure, loaded with antibiotics to keep them from getting sick. Plus cattle grow slower on grass than on government-subsidized grain. And then there was all the promoting and handling of email and phone orders with their rural customer base, a little more strapped for cash than most urban folk.

The rewards, though, went well beyond the dollar. The beef was hormone and antibiotic free, and the cattle led a good life outdoors on clean grass. Loka’s neighbors loved the taste, and Loka and her family loved tending the lush pastures the animals feasted on. Manure was not a problem but an asset that the grass soaked up, revitalizing itself for the next year of grazing, and pulling carbon out of the air and back into the ground. Plus raising cattle on grass instead of grain meant that the pastures were always covered with a living blanket of green. Instead of being confined to a feedlot and feeding from troughs of grain, the animals roamed at will and dined on what was below their hooves. The bare aisles between rows of shallow-rooted corn let the soil rush away during a torrent of rain or an onslaught of wind, but grass holds the soil in place. No need to mine phosphorus from Florida to keep up the fertility. This way of raising meat was good for people, good for farm animals, and good for the land, the water, and the air. Still, like John, the money had Loka worried. Loka and her husband weren’t making enough for the farm to sustain itself.

“There’s no way I could do this on its own,” John said, referencing his CSA farm that had just celebrated its 10th anniversary (see Figure 3.1). “Without Karen’s salary, we couldn’t make it,” he said, meaning his wife’s agency job. Direct-to-customer sales aren’t easy, as attested by the mere 0.4 percent of total agricultural sales they account for in the United States.¹ That’s not very much.

Why is it that the products that best serve our tastes, community, and environment so often struggle to survive in the market? A sad truth is that we often wind up encouraging what we don’t want when we enter the economy to get what we do want. This chapter works through the organizational factors that shape the motivations of money and markets, with all the challenges they present to sustainability, environmental justice, and the beauty of ecology. The previous chapter described how the materialism of modern life is propelled by social psychological desires for status and social connection. But here’s some good news: These desires are not fixed. They can manifest in many different ways, depending on the social organization of our lives. The economy figures mightily in that organization. Through interaction with culture and social psychology, the economy helps create the material motivations and manifestations of modern life—yes, with all their challenges, but also with all their possibilities.

Figure 3.1 Community Supported Agriculture: Farmer John Curtis digging and planting at his CSA project, Barefoot Gardens, in Macomb, Illinois.



Source: John Curtis.

Yet the way we usually talk about economic issues is saturated with images of inevitability. It's often that way when we consider material matters. They intuitively seem like the stuff that you can't do anything about, giving one a feeling of powerlessness. But a material factor in social life is never only material. How and what we think shapes our material circumstances as much as the other way around. Ideas matter. We intend that as a pun—that ideas have *matter*-ial consequences.

For example, a century of political fights and legal rulings have gradually resulted in laws that favor bigger firms at the expense of smaller operations, like the farmers discussed above. But recent pushbacks against large-scale industrial agriculture have made some space for local farmers' markets. If, through good argument and good politics, our ideas change, we can indeed gain power over our economic organization. Although in this chapter we enter the ecological dialogue of the economy from a material starting point, we will often find ourselves turning to the power of the ideas to understand how the economy came to be, and how it could be different.

One such idea is the notion of economic growth and the inherent goodness we often ascribe to it. A rise or fall in economic growth is always headline news, and politicians constantly gear their efforts toward encouraging growth—in part because growth serves many powerful economic interests, but also because it has become a central cultural value. As David Korten has written, "Perhaps no single idea is more deeply embedded in modern political culture than the belief that economic growth is the key to meeting most important human needs."²² The

current arrangement of the economy tends to encourage not only desires for consumption but also growth in consumption and thus in the economy. Pretty soon, writes David Harvey, we wind up doing “production for production’s sake, which also means consumption for consumption’s sake . . . Environmental problems? Too bad!”³

It is important to recognize that economic growth (and consumption, too, for that matter) does not in itself lead to environmental damage. As environmental economist Michael Jacobs notes, certain forms of economic growth, such as investment in companies that promote the use of green technologies or local food production, may in fact be beneficial to the environment.⁴ However, the current structure of economic interests tends to overwhelm efforts to direct growth in environment-friendly and community-friendly ways. Instead, the public conversation just focuses on growth, growth, and growth. Whether through lobbying by a big Wall Street firm or in casual conversation in the coffee shop, we create social pressure for our government to give more gas to GDP (gross domestic product). Economic growth can take such a hold over our lives that issues of sustainability, justice, and beauty fade from concern.

Central among the economic structures that promote growth is social inequality. You want as big a piece of the pie as others have, but they don’t want to give up the nice slices they’ve got. The solution: Make the pie bigger. The problem: finding the resources to make a bigger pie. But imagine there was no economic inequality. (John Lennon might wonder if you can.) Motivations for keeping up with the Joneses through conspicuous consumption would largely disappear, because we are already all equal to the Joneses. Understanding the origins of economic inequality is thus a—and perhaps *the*—central problem of social organization for environmental sociology to consider.

The Needs of Money

In most of the world, money is now the principal means of arranging for one’s material needs and wants, and in much of the world, it is virtually the only means. Thus, the prudent person maintains a good supply of money, if possible. Money is useful stuff. Money is power. Because money is so powerfully useful, most of us wish for more of it rather than less.

Money wasn’t always so important. People long ago relied on direct market exchange, where farmers like John sold their vegetables to someone who needed them or perhaps traded with an ironsmith to get something else. In fact, the first coins only date from around 700 BCE. Even after coins appeared, most people continued to lead a largely subsistence lifestyle where their toil produced a good part of what they consumed. Even if a feudal lord owned the land they worked on, peasants continued to produce some crops for their own consumption. But in the last 300 years, with industrialization and associated processes like the assembly line, subsistence has given way to laboring for a wage. People travel to a production site where they receive money for their labor rather than staying connected to the product of their toil—like a delicious, organic vegetable in John’s case. And that production site is often under the watchful eye of a supervisor or owner who seeks to make some money on top of what the workers receive. That means the commodity has to sell for a little bit more than its inputs, including labor.

And herein lies a problem. Capitalism (that's what we are talking about here) always faces a basic challenge. To make a profit, workers have to be paid less than the price of what they make. OK, that's obvious enough. But then it's hard for workers to buy all they make. They weren't paid enough for that. And if the workers can't buy it all, how do capitalists sell enough to pay all their workers and still make a profit? This *wage-price gap* is a basic conundrum of capitalist economies.

There's a nifty little parable that describes the gap, the *problem of the original capitalist*.⁵ Imagine you are the original capitalist, the very first one, and you hire Mike to be the original worker. You offer to pay Mike 4 shekels to raise enough carrots for a pile two cubits high. (Shekels and cubits? It was a long time ago, after all. A cubit, by the way, is about 18 inches—roughly the length from the tip of the king's middle finger to the end of his elbow.) But your brave new little plan is to charge more than 4 shekels for the carrots. That way you can both pay Mike and keep something for yourself. In fact, since it was your idea, you think you should make more money than Mike, even though he's doing the work. So you intend to charge 10 shekels for the carrots, keeping 6 for yourself. And that's where your little plan falls apart. The only people with shekels are you and—when and if he gets paid by you—Mike. (Remember, you're the original capitalist and Mike is the original worker.) Even at a price of 5 shekels, Mike won't be able to buy all the carrots, because you will have only paid him 4. You could buy the difference, but then you would only be buying from yourself, which wouldn't be buying at all. No money to be made there. Or anywhere.

Fortunately for capitalism, there are lots of workers and lots of capitalists to pay them. So you can sell the carrots to someone else's workers, not only to Mike. You could sell to Loka, maybe! But on the whole, the *sum of all workers everywhere must buy more than what the sum of all workers everywhere were paid*, if there is to be profit. (Following this, still? It might help to read that sentence over again a time or two.) Profit comes from selling more than you paid out. Your labor costs have to be less than your sales income. But, if you put all capitalists together, their collective labor costs are still the source of their collective sales. The workers are the ones who buy the stuff in the end, and they can't buy more than they were paid. The capitalists themselves can't make up the difference by going on massive spending sprees like Michael Jackson because their ability to do so comes from profit, profit that they haven't made because the workers of the world couldn't collectively buy enough stuff. So going global actually doesn't fully solve the problem.

How does capitalism work, then? In a word: debt. Through this brilliant little accounting trick, money keeps ever moving in space and across time, through loans and bills and wages not yet paid. Consequently, when the loans, bills, and wages need to be paid in one place, there is another place to pay them from. In other words, workers do indeed buy more than they were paid—by promising to pay later.

It all makes for a pretty delicate balancing act, though. If capitalists get too greedy and hold on to too much profit without raising wages, workers won't have enough money to buy the commodities and take out the loans necessary to drive the economy. (They need money to take out loans, too, or the banks won't have enough confidence to give them.) This is perhaps the most fundamental reason why economic growth is so central to capitalist economies. If the economy grows, then there is simply more money around by the time the economic promises people have made to each other have to be redeemed, thus bridging the wage-price gap.

For that's what loans, bills, and wages are: promises. But if doubt festers about those promises, the house of cards collapses into recession or even depression. Growth makes it much, much easier to deal with a few little imbalances here and there and keep everyone's confidence going. The capitalist doesn't have to always be holding his or her breath, lest the card house tumbles in the exhale.

Not just capitalists, though: We all find ourselves hoping for some economic growth, for a variety of reasons. One is inflation, which means that money left by itself decreases in value. Stuffing your wad in a mattress, even a very secure one, is a rather shortsighted practice. But even without inflation, the uncertainties of the market lead us to nurture our money so that we are not left short. For instance, the possibility that employers may decide to downsize keeps nearly everyone at some degree of economic risk. Another source of risk is the business cycle, the seemingly inevitable tendency of any nation's economy to have a few cards fall, increasing unemployment and other forms of economic stress. Consequently, almost everyone with any accumulation of money seeks to use it to build a cushion that will at the very least retain, if not increase, its size and comfort. For these reasons—putting aside for the moment the common desire for simply having more—those with money invest it, preferably in a way that offers high returns.

The inclination to seek high returns resonates throughout the economy. A bank can offer good interest rates only because of its own success in investing its depositors' money in loans, stocks, bonds, and other monetary instruments with strong returns. If the bank fails to offer competitive interest rates, it will lose depositors and possibly be forced to close. We often choose to improve on the rate of return banks offer us by investing (if we have the time and sufficient capital) in stocks, bonds, and other financial markets. Managers of mutual funds and individual investors, like banks, seek a high rate of return for these investments. Mutual fund managers want to keep customers, and individual investors want to make it worth their time to play the market themselves. Even if an individual invests in socially and environmentally responsible stocks, bonds, and mutual funds, the tendency is still to seek the highest rate of return possible from those opportunities.

Those of us with no savings—perhaps most especially those of us with no savings—also usually look to increase our stock of money. Wealth is the surest route to more wealth. The trouble is that much of it passes through families. What happens when you don't have that economic starter pack, like some land from your grandparents, some cash your aunt gave you, or a savings bond your parents took out for you 10 years ago? Consequently, the historically disadvantaged, like Native Americans and African Americans, generally have significantly less to build from. And by significantly less, we mean Black Americans have about 40 percent less wealth than White Americans.⁶ So those with less wealth face greater pressure to sell their labor power for low prices, as their options are more limited. The cushion isn't there. But, of course, they sure would like to make more of a cushion, if they can.

Consequently, nearly all of us, rich and poor alike, find ourselves continually seeking more money, even to hold our economic place. Almost unavoidably, we assume the motives of the market: Seek the highest returns for labor and capital, and minimize costs. Sell high, buy low. The needs of money become our needs, too. This *generalization of the market* has the important consequence of promoting political interest in economic growth. It's not just a thing for capitalists. (Or maybe in this sense, we are all capitalists.) If everyone is to have more wealth at the end of the year

than at the beginning of the year, the economy must grow. This is simple math. Most politicians therefore see economic growth as a potential way to maximize the number of people who have been made wealthier—and thus, they hope, to maximize votes. Consequently, virtually all modern governments try to promote economic growth.

But there are no guarantees that growth will increase everyone's wealth or that it will increase everyone's wealth equally. Even if everyone gains at least some wealth, the trend toward inequality will persist, since the wealthy can almost always take better advantage of investments, labor auctions, and other economic opportunities—an economic version of what sociologist Robert Merton once called the “accumulation of advantage.”⁷ Without mechanisms to continually re-level the playing field, an increase in inequality is probably an unavoidable consequence of economic growth.⁸ And if the gap grows too wide, the problem of the original capitalist will stretch everyone's economic promises to the breaking point. Workers won't be able to pay their loans and buy things like houses and flat-screen TVs. And when workers can't buy enough, capitalists can't pay enough, so workers buy even less and capitalists pay even less—until the economic house has very few cards left standing. This is not a happy thing.

Thus, although in the short term economic growth may help resolve political conflict, as many politicians hope, in the long term economic growth may only exacerbate it. Nevertheless, country after country continues to seek political salvation in economic growth, often with little regard for economic equality. Environmental concern usually remains on the political sidelines, bumped aside by the political momentum for economic growth, and economic inequality compounds as countries increasingly bump re-leveling mechanisms to the sidelines as well.

The Inevitable Market

The market's pace feels breathless, its momentum unstoppable. Even if you don't want growth, even if you're content with where you are, it's pretty hard to avoid being swept up in the stampede of money. And if you're a capitalist, it isn't any easier to sidestep these pressures than it is if you're a worker. As environmental economist Richard Douthwaite has written, “It is not just that firms like growth because it makes them more profitable: they positively need it if they are to survive.”⁹ If a firm has shareholders, it continually needs to maximize its profits, or investors will withdraw their support and put their resources into a firm that does. Employee-owned and privately owned firms can often shelter themselves a bit from the maximizing pressures of investors. But even they will sometimes have to go looking for outside capital, and then they've got to show they can make some money for whomever loans or invests.

A firm's current employees likely do indeed want to be paid more—most people do—or they might seek employment elsewhere. Even nonprofit organizations face the pressure for growth. Employees at nonprofits generally would like to be paid more too. (Low pay is a huge complaint about nonprofit work, after all.) As a consultant told Loka once, being nonprofit doesn't mean you don't want to make money. It means you make money in pursuit of a mission. Plus it helps if you pursue that mission in ways that exclude lobbying. That way your donors can write off

the money they give you. If you aren't financially viable, she said, you won't last long. And financial viability impacts the size of your organization—its capacity to get grants and hire talented staff to make a broader impact on the issue at hand. Being a nonprofit doesn't absolve you from the world of money. With all this short-term pressure for growth, whether the organization is nonprofit or for profit, environmental concerns can easily slip from focus.

Plus—shocking!—owners and bosses actually usually are interested in making more for themselves too, as the current huge levels of executive pay make plain. Just like our original capitalist, owners and management usually decide to put as much profit as they can in their own pockets, after paying their debts, paying for needed reinvestment in the business, and paying employees enough to keep them coming to work. Thus, it is a virtually universal pattern, although by no means economically necessary, that employers take more home than employees. Indeed, it is a virtually universal pattern in both nonprofit and for-profit institutions that those who have the most control over budgets are generally the highest paid. The best predictor of pay is not how hard you work—the hardest work, such as manual labor, is often the worst paid—but the power of your organizational position.¹⁰

In sum, the tendency of market forces as we conceive of them today is for increased growth, increased inequality, and increased environmental consequences.

A Treadmill of Production

And increased scale too. Get big or get out. It's a familiar and endlessly repeated story in industry after industry. But there's a surprising part of this dynamic. All these economic entities struggling for more aren't paying attention to what the overall rate of economic growth is. They don't try to limit their ambitions to the 2 or 3 percent annual growth rates now typical in developed economies, figuring that's their allotted share. No, they typically try to get as much as they can. But what if everyone is trying to exceed that 2 or 3 percent growth rate—which really isn't all that much anyway? Probably a few will succeed, which means others will fail, putting huge pressure on them to do better. Gotta pay those investors and keep those employees showing up for work, and maybe make the payments on that new mansion. So they try to kick their own situation into a higher gear, potentially trying out some approach to greater profit that their competitors haven't yet thought of or managed to achieve. Like forcing workers to take less pay, but still show up. Like getting a break on the environmental regulations for your area of business. Like buying out another firm so you can get a monopoly in an industry. Like talking some investors into backing some new technical innovation your crack new engineer just thought up. But of course, your competitors, if you haven't already bought most of them, are then going to try the same thing, busting back your little burst of increased profit.

The surprising result? Profit rates in any area of business tend to decline over time. If you get ahead a bit, someone else is likely to see it and try it too, or come up with something even better.

Which leads to another surprise. The total amount of production in any area of business typically goes up, even when profits are declining. Economics conventionally teaches that production will drop when profits get tight. Why bother to make more of something if you're making less on it? Precisely because you are making less. So you need to make and sell more to keep your income up. But, of course, if everyone in an industry starts trying to produce more, that will put pressure on

everyone to drop their prices. So what do you do as a member of that industry? Probably, at least at first, you will try harder to sell even more . . . which in time will lead to still lower prices . . . which will lead to more production to make up for lower prices . . . which . . . you get the picture.

Except many don't get the picture. At least they don't want to be one of the ones who suffer the obvious results: that somebody goes out of business, and that some workers quit or lose their jobs. And if someone does go out or some workers leave or get fired, don't expect that production will go down. The others still in the industry will try to grab the market share former competitors had attracted, continuing the cycle of pressures until workers' pay has been cut to the absolute margin of what they can accept and, eventually, another company goes out of business too. In time, there may be only a handful of firms left in an industry—like the manufacture of large commercial airplanes, which now is down to basically only two companies, Boeing and Airbus—and workers are left with pay, health benefits, and pensions cut to the bone.¹¹ Meanwhile, the environment: Who remembers that?

This feedback of firms increasing production in the face of declining profits, leading to monopolization, social inequality, and environmental decline, has been aptly called the *treadmill of production* by environmental sociologist Alan Schnaiberg and others (see Figure 3.2).¹² It's a process of mutual economic pinching that gets everyone running faster but advancing only a little, if at all, and always tending to increase production and inequality, and to sideline the environment.

Here again, as we did earlier, we should note the parallel trajectories of increases in environmental impact and increases in social inequality. Despite overall economic

Figure 3.2 The treadmill of production: Mutual economic striving keeps us always struggling to increase production, often with little regard for social and environmental consequences.



Source: Matthew Robinson and Bell.

growth, incomes have been steadily declining for most people, as Chapter 1 discussed.¹³ In 2013, U.S. corporations took in their highest after-tax earnings—\$2.1 trillion—since the first year such numbers were recorded in 1929. A big factor has been the decline in the corporate tax rate from 55 percent in 1942 to today's 20 percent, as corporations have successfully argued to politicians that the demands of the treadmill require laws more beneficial to business. This same argument about the treadmill has been leveled at workers and unions, so that corporate employee compensation today is the lowest since 1948, despite such high levels of profit.¹⁴

As a result, corporate profit margins now typically exceed the rate of economic growth, often by a wide margin. Typical rates of corporate profit in the United States have been about 6 percent of GDP since 1950, and have been running in the 8 to 10 percent range since 2004.¹⁵ But rates of economic growth in the United States have averaged about 3 percent a year since 1950. Similar figures apply in most other wealthy countries.

This differential is possible only if some are getting less than others, and is a measure of the extent to which the pressures of the treadmill of production have been turned into an opportunity for the rich to get richer.

But there are limits to how fast people can run. You can only work so hard for so little for so long. There are also limits to the abuse the environment can take. It can run only so fast, too.

The “Invisible Elbow”

Adam Smith, the eighteenth-century founder of modern economic theory, envisioned that individual competitive decisions would guide us all toward prosperity by increasing production and efficiency. He suggested the famous image of the “invisible hand” to describe this process. The treadmill of production, however, makes the economy act like what Michael Jacobs has described as the “invisible elbow.” Even if the goal is merely to hold one's place on the treadmill, economic actors find themselves constantly shoving and jostling each other. Although this jostling is often unintentional—Jacobs says it is usually unintentional—both people and the environment get compromised in the process. “Elbows are sometimes used to push people aside in the desire to get ahead,” Jacobs writes.

But more often elbows are not used deliberately at all; they knock things over inadvertently. Market forces cause environmental degradation by both methods. Sometimes there is deliberate and intended destruction, the foreseen cost of ruthless consumption. But more usually degradation occurs by mistake, the unwitting result of other, smaller decisions.¹⁶

The elbowing that Jacobs describes is more technically described by economists as *externalities*, economic effects not taken into account in the decision making in a market. Externalities may be divided into two broad types. Increased inequality and pollution are examples of *negative externalities*, costs not included in economic decision making and generally borne by those who did not make the decision. There may also be *positive externalities*, benefits that were not taken into account in an economic decision and may have wide utility, such as more efficient production or, conceivably, an economic arrangement in which individual economic choices

promote greater equality, less pollution, and other public goods. The problem with Smith's image of the invisible hand is its rosy suggestion that the treadmill's market competition leads only to positive externalities. Jacobs's invisible elbow points out that negative externalities are also common consequences of the treadmill.

Externalities are not necessarily invisible, though, as Jacobs also points out. As we rush along on the treadmill, we may be well aware of some of the consequences of flying elbows. The *visibility of externalities* is enormously significant for our social decision making. The ability to see and appreciate an externality, whether positive or negative, is the first step toward creating the social conditions that promote the former over the latter. If we are unaware of something, we are certainly unlikely to direct our actions with that something in mind. Creating this visibility is a political act of considerable social and environmental importance.

Development and the Politics of the Growth Machine

Visibility is a lot easier to create when the effects of an externality are local. Because investment is sometimes fixed in space, local businesses typically strongly promote local economic growth, as sociologists John Logan and Harvey Molotch have observed. Consequently, the environmental politics of money and markets also have a strongly local dimension, creating a potential opportunity for activists to mobilize local resistance. But, as we shall hear, business interests generally win out in these politics, despite the greater visibility of the consequences.

Buildings, land, machines, and a well-trained workforce are hard to move around. It's a bit of a pain for capital interests, but there it is. So firms try to create as much economic activity as possible for these fixed investments. Consequently, business leaders almost universally advocate pro-growth policies that increase the circulation of capital through their local areas. Local business leaders are often in competition with one another. Still, one thing they can usually agree on is increasing the size of the local economic pie. They band together into a variety of alliances that Logan and Molotch call *local growth coalitions*. To the extent that these coalitions can persuade local government of the importance of increasing local economic activity, growth becomes a leading cause of political leaders, making them a part of coalitions for growth.¹⁷ The result is that a city or a town or a state acts as what Logan and Molotch term a *growth machine*, dedicated to encouraging almost any kind of economic development—frequently with little regard for environmental consequences or for the wishes of affected neighborhoods.

Local people have spatially fixed investments of a different sort, and because of them, conflicts with growth coalitions often arise. Logan and Molotch call these local investments the *use values* of a place: homes, strong neighborhoods, supportive networks of friends and family, feelings of identification with the local landscape, aesthetic appeal, a clean and secure environment. Business, on the other hand, is interested in the *exchange values* of places, the ways that places can be used to make money. The use values that local people gain from a place are often incompatible with the exchange values business can gain.¹⁸ Here is where the politics start to boil, especially when local communities have activists who are effective at making use values visible. In one such conflict that Mike was involved in some years ago in Iowa, use values won out a bit over exchange values, and a big chunk of open land was maintained for a park, rather than it all becoming a housing development.

But usually when there is conflict, pro-growth business interests win. Neighborhood groups tend to be far less organized than local growth coalitions and are usually less able to influence the political process. Moreover, neighborhoods may feel divided allegiances between what is happening in some other neighborhood and their own economic interests, sometimes leading to not-in-my-backyard politics as opposed to not-in-anybody's-backyard politics. In the face of such divided interests, local governments tend to follow the pro-growth policies of the more united, better-organized business community.

A further result of the politics of the growth machine is an inherent contradiction in the tasks we set for local government. On the one hand, we expect government to promote economic growth; on the other hand, we expect government to monitor and regulate environmental impacts.¹⁹ Sometimes this dual role results in well-thought-out development projects that strike a good balance and promote economic growth without compromising the local environment. Yet it can also turn government into the economic fox that guards the environmental chicken coop.

Core and Periphery Zones

Visibility is an even greater challenge, though, when we consider the increasingly international character of the treadmill and conflicts over growth and its social, economic, and environmental consequences. Corporations and investors are well aware that out of sight is out of mind, and often ship the worst excesses of industrialism overseas to developing countries. Internationalizing production also allows firms to find places with easier labor and environmental laws, safely removed from voter pressures back home. Plus firms can use internationalization to increase their leverage in bargaining with workers. So costs go down, despite increased transport.

This globalization of capital is not new, although it has definitely intensified in the last fifty years. Sociologist Immanuel Wallerstein argues that it helps to understand history if we see capitalism and its politics as part of a *world system*. Wallerstein argues that the poorer countries are not underdeveloped through some accident of history. Rather, they are *periphery* nations that provide cheap labor and natural resources to *core* countries, helping the core countries handle their inner tensions over what Schnaiberg called the treadmill and Logan and Molotch called the growth machine²⁰ (Wallerstein doesn't actually use the terms *treadmill* and *growth machine*.) The United States, Germany, and Japan are all examples of core countries; Vietnam, Nigeria, and Colombia are all examples of periphery countries. Because of differences in political and economic power, wealth tends to flow to the core regions from the periphery ones, feeding the former and bleeding the latter.

World systems theorists also sometimes point to regions that have some of the features of both core and periphery, what they term *semi-periphery*. Mexico, Brazil, South Africa, and China are all examples of semi-periphery countries. It's also important to note that core, periphery, and semi-periphery relations can emerge not only between countries but within them as well. The huge levels of inequality between regions of China are an example of internal core and periphery relations.

Not all core countries have equal power in the world system, however. The world system at any one time is dominated by a particular *hegemonic state*, as Wallerstein terms it, meaning a core nation that enjoys productive and financial dominance that gives it an edge over other core states. Thus it reigns in the world market.²¹

Today, that country is the United States. Tomorrow, perhaps it will be China or India. The country with the edge today may well lose it as international alliances, wage structures, and capital investments shift. Only the few can enjoy hegemony.

And it's hard to escape the periphery. The unbalanced flow of matter and energy extracted from periphery countries keeps them in what Stephen Bunker and Paul Ciccantel call a *resource trap*.²² Because investment mostly comes from the core, little of the profit from natural resource extraction stays in the periphery to develop their home economies, leaving periphery countries little option but to deplete their exportable resources even more. Consequently, they are trapped in poverty. Meanwhile, core countries like the United States use the resources of developing countries to supplement their own resource base, importing oil from the Middle East or uranium from Eastern Europe to fuel nuclear power plants.

At the same time, core countries wind up avoiding much of the pollution associated with resource extraction. Citizens of core countries don't see it, and don't think about it. Take the situation of the Ogoni people, an indigenous group in Nigeria, discussed in Chapter 1. Their home region, Ogoniland, houses a vast oil and gas reserve. Shell Oil controls the mineral rights, though, and has reaped over \$38 billion in profits.²³ Meanwhile, the Ogoni people live in desperate poverty in the midst of an environmental catastrophe of leaking pipes and exploding wellheads. The money goes out, and the pollution stays. Some 85 percent of the Ogoni are unemployed, and only one doctor is available for every 100,000 people.²⁴ And when local business and political elites look at the possibilities of the situation, they can see that development has pretty much all gone in one direction, the direction they elect to continue for the small gains it may provide to a few: ever more bleeding of the local land, economy, and people.

Invisible Communities and Necessary Sacrifice

But we don't see that, and we usually don't think about that, when we tank up the SUV. The Ogoni are an *invisible community*. The things we buy usually come with some kind of story told by ads, logos, and packaging. But they rarely come with the whole story. What we buy came from some place, and people and other creatures were living in that place. We are not told about the consequences for them. If the product entails toxic and polluting production practices, we may sometimes wonder a bit, though. So the economic and political interests involved have a strong incentive to frame the places where things come from as empty and desolate, or struggling and undeserving of the level of concern we have for our own communities.

Scholars sometimes call this process of forgetting, ignoring, or obscuring the origins of what we buy *commodity fetishism*: a kind of magical imagination that products just appear—poof!—before us, ready for sale. That term is hard to say, and its wording doesn't immediately conjure up the people and places involved. So we prefer to speak of “invisible communities.” But we mean pretty much the same thing.

Invisible communities aren't necessarily far away, though. There may be some close to where you live. Or it may even be exactly where you live—as Loka once discovered to her horror and that of her neighbors when a CAFO, a “confined animal feeding operation,” was proposed right across the road from her family's farm. The livestock in a CAFO may be confined, but the consequences are not. A facility with 18,200 hogs means a lot of hog food, a lot of hog manure, and a lot of hog

manure stink. Hogs are large animals, and they do little but eat and excrete in these facilities. But the consumer in the city doesn't smell the sometimes overpowering stench that drives longtime rural people from their homes and makes selling their properties sometimes impossible.

So next time you stick a fork into a succulent slice of pork roast, consider the red meat political conflict that it took for a corporation like Smithfield Foods—now a subsidiary of the Shuanghui Group, a large Chinese food conglomerate—to establish a CAFO in some rural community (see Figure 3.3). And consider the reasons why many rural people fight against them. Within 2 miles of CAFOs, both resident self-reports and air-quality measurements detect hog stench one day in two.²⁵ (If not for varying wind directions, it would likely be every day.) Those exposed to CAFO emissions are 4 times more likely to report headaches, 6 times more likely to report eye irritation, and 7.8 times more likely to report nausea than those not exposed to these emissions.²⁶ In a study of 644 children in a rural Iowa county, 55.8 percent of children who lived by large swine farms had asthma symptoms.²⁷ And the big lagoons where CAFOs store hog manure often fail. Another Iowa study tabulated that manure spills killed 5.7 million fish in 152 incidents in a six-year period.²⁸ Not surprisingly, property values drop markedly for those living beside these facilities: anywhere between 6.6 percent for those who live 3 miles away and 88.3 percent for those living next door to a CAFO.²⁹ Because who wants to buy a smelly property and live a polluted life?

Sometimes, CAFO opponents are able to make a stink of their own, though—a political stink. But they often encounter an unsavory response to their efforts to make invisible communities visible: the idea that some must be sacrificed for the prosperity of others.

“If you don't like it, don't live in the country,” a board member boldly burst out, as Loka sat with her neighbors listening to commentary on the hog facility proposed near her family farm.

“You people come from the city, and you aren't from around here, and don't know anything about agriculture,” he finished. It was a great irony for Loka and those sitting beside her to listen to these comments at a county board meeting held to discuss the proposed site. Loka was among the fifth generation of farmers in her family. Some of her neighbors could trace their settlement in the area back to the early 1800s, down to the very plot of ground. All of them, as one neighbor said, predated the proposed factory farm, paid for by out-of-state investors.

“This place is desolate,” another board member tagged on supportively, addressing the other board members. “Have you been out to that area? I drove out there. There's absolutely nothing there. It's the perfect place for this.”

Nothing there, Loka thought to herself. What about my family, our neighbors, and the cattle—let alone the beautiful woods, crops, and grasslands that spring from the fertile Illinois soil, she thought? For the convenience of this \$10 million investment, though, all of that was rhetorically rendered into nothingness.

Rural people like Loka's neighbors use every political and community idea they can conjure up to stop the siting of these facilities. Groups form and try to make the elbows of the treadmill more visible, building coalitions with environmental groups concerned about the water and fish; with animal welfare groups concerned that the hogs are too packed in and never see the light of day; and with economic justice groups concerned about the pay and conditions for the mostly migrant workers, as well as the way CAFOs knock family farms off the treadmill. They join together to

lobby regulators and politicians. Others personally write letters and stick up signs in their yards. At the coffee shop, they stop the banter about how big hog barns are good when the conversation and the consensus start to turn that way. They speak up instead of staying silent.

CAFO advocates put together coalitions of their own, though—coalitions eager to keep the exchange values flowing. Meat processors, who often own the CAFOs to begin with, happy to expand their trade. Politicians, like the board members mentioned above, anxious to appear pro-business, even when the tax benefits are negligible. Grain farmers eager for a little boost in price and sales (although some others, more embedded in their communities, fight CAFOs, too). Most decisive, of course, is which side the politicians come down on in a treadmill struggle. With CAFOs, few readers will be surprised to hear that in most cases—whether the facility produces hogs, cattle (including dairy), or poultry—industrial interests win.

But here's some good news: Loka's group was one of the lucky few invisible communities that, in the end, won. That CAFO wasn't built.

Nonetheless, local state governments have often taken away the right of localities to enact anti-CAFO zoning, and have banned "nuisance lawsuits" against them. In the case of the county board meeting Loka and her neighbors sat through, board members could discuss and make suggestions to the state department of agriculture,

Figure 3.3 Inside a large-scale hog confinement facility or CAFO, near Waucoma, Iowa. Such "factory farms" for livestock are becoming increasingly common throughout the industrialized world, despite concerns about their implications for human health, animal health, economic justice, and the environment.



Source: © Macduff Everton/CORBIS.

but none of their views were binding. Plus, state governments have put into place generally mild environmental regulations, often hand in hand with special government funds to pay the new costs associated with the regulations, such as money to build stronger manure lagoons. Which is a good thing, say advocates, but a subsidy and a bit of political window dressing, say the critics.

And as the treadmill continues, so does the political debate.

Overproduction and Underproduction

Even with political interests lined up to smooth laws, quell opposition, and build markets, producers still have their challenges. Environmental sociologist James O'Connor argues that two of these challenges are especially fundamental.³⁰ The first is what O'Connor calls the *crisis of overproduction*, which is pretty much what the treadmill of production theory describes. O'Connor argues that this crisis stems from a “contradiction” in the structure of the economy that producers never truly resolve. Despite any current success they may have achieved in technology, markets, labor costs, and politics, the pinching and elbowing still go on, as overproduction lowers profit margins and spins the treadmill of production ever faster. Producers can win battles, but never the war.

The second challenge is what O'Connor calls the *crisis of underproduction*, and it stems from another “contradiction”—that sometimes producers find themselves undermining the same social and environmental relations that make their production possible. They try to solve the first crisis by creating the second. The crisis of overproduction points to social and environmental consequences that are mainly external to each producer, such as negative externalities of CAFOs like economic inequality and air and water pollution. For the adept producer, with big elbows, these are other people's problems as they bump by and move on to greener pastures. But the crisis of underproduction is a more direct and fundamental threat, as the declining capacity of environment and labor to keep output going undermines the very possibility of production.

Fishing is a vivid example. In fishery after fishery around the world, fish harvests have been so large that insufficient spawning stock remains to repopulate the fish, which in turn leads to more harvesting that cuts further into the spawning stock, until the stocks collapse, making further production impossible. The cod stocks of the Grand Banks, once considered inexhaustible, have virtually disappeared, compelling the Canadian government in 1992 to declare a moratorium on further cod fishing there. Cod lingers on in the Georges Bank and the North Sea, where the fishery remains legal, but stocks are dangerously depleted. The U.S. National Oceanic and Atmospheric Administration (NOAA) estimates in 2010 that the Georges Bank cod stock was 10 percent of what it should be, and in 2013 was forced to cut the cod quota by 61 percent.³¹ Meanwhile, the orange roughy, one of the species the world turned to in the 1970s when cod went into decline, has now in many places (especially New Zealand and Australia) already collapsed as well.³² Swordfish, toothfish, Atlantic bluefin tuna, plaice, anchovy, sand eel, sole, blue whiting, and more: The list of fully exploited, overexploited, or depleted fish now totals some 77 percent of world marine fish stocks.³³ And did we mention whales?

It is not uncommon, though, for a producer to be caught in between, facing declining profit margins through production increases at the same time that it takes greater and greater effort even to maintain the same level of production. In fishing,

this scrambling dance has often led to a few huge and highly mechanized boats that harvest way more fish per vessel and yet fewer overall. Our ordinary understanding of economics would tell us that at least the price of the fish should rise, due to the lower supply, reversing the problem of declining profits. But the *Jevons paradox*—named after William Stanley Jevons, a nineteenth-century British economist who first observed it with regard to coal—points out a dilemma.³⁴ The implementation of more efficient means of production can lower costs so much that people demand the product more. As Jevons put it, “It is the very economy of [coal’s] use which leads to its extensive consumption.”³⁵

In other words, more efficient production can actually increase resource use until in the end there is simply nothing left—yet another instance of the world acting out Dr. Seuss’s *The Lorax*.

Metabolic Rift

What if the Earth and human use of it were mutually constitutive, where human society gains the nutrients necessary for sustenance and later returns those nutrients back to the earth, yielding more sustenance? Think of it as a kind of farming of the whole earth—but a regenerative kind of farming that gives back to, and does not rob from, those working the land or the land itself. We metabolize the Earth, and then give back when we are done with what we took.

Sounds great. But environmental sociologist John Bellamy Foster, along with his colleagues Brett Clark and Richard York, holds that our economic structures discourage this regenerative interaction.³⁶ Instead of cycling back the nutrients of human existence, our current economy divides human production from ecological conditions. Foster and his colleagues call this division *metabolic rift*, an “irreparable rift in the interdependent process of social metabolism,” leaving us standing apart from the product of our toil, and the product from its ecological dependency.³⁷

Think about it. When you do work, work of any kind, how often do you pause to consider how dependent what you are doing is on ecological processes, as both the source of the materials involved and the context to which those materials must inevitably return? And how often do you pause to consider your labor as an ecological process in itself, rather than something you do to get paid? Pick any factory, and you have an example. Each person specializes in a repetitive task on the assembly line that gradually mounts up to the end product, a truck for example. But in the current system, the workers sell their labor, not the end product, separating their bodily labor from its eventual fruits.

Metabolic rift also separates the nonhuman parts of ecological processes from economic production. (We’re trying to be careful here not to imply that humans are not part of ecology—which is sometimes hard to avoid, given our usual language for speaking about such things.) A case in point is soil, constantly used to produce food staples, but also constantly depleted of its fertility by the current manner of agricultural production. You could say that the food crop robs from the soil to produce its bounty. In which case, we won’t be able to keep that up for long. You can’t keep robbing a bank faster than the deposits come in. So conventional farmers apply nutrients from elsewhere—like phosphorus, which in the United States mainly comes from mines in the Bone Valley of central Florida. Otherwise, soil fertility would tank, and the fields would lose their productive capacity. But who is refilling those mines? No one. That’s why world phosphorus prices are rising so

fast.³⁸ The Global Phosphorus Research Initiative (GPRI) estimates that we could hit “peak phosphorus” in 2030, after which extraction rates will have to decline, as costs become prohibitive.³⁹ Imagine if our productive processes returned fertility to the soil without robbing from elsewhere to sustain growth. There actually are techniques that could move us pretty close to such a vision, the techniques called “sustainable agriculture,” informed by an agroecological vision—techniques like crop rotation, rotational grazing, perennial crops, no-till, green manure, insect farming, agro-forestry, civic agriculture, and more. But we’re a long way from sustainable agriculture today.

There is a third, and vivid, component to the theory of metabolic rift. The rift between city and country isolates people from the ecological processes upon which they depend. Our garbage and bodily wastes mainly get thrown or flushed away, later to pile up in vast garbage mountains on the edge of cities or out in the countryside, or to be filtered out as “biosolids” in wastewater treatment plants. Some garbage gets recycled, and some biosolids do get reapplied to the land to grow crops. But not much of either, in part because we have not planned the ecology of our economy well enough that materials recycle easily and biosolids are clean of toxics. We don’t think much about where all that stuff is going, and about the consequences of maintaining these rifts. The same is even true for our own bodies. What is a coffin in a graveyard but an attempt at metabolic rift?

The Constructed Market

Breathe for a moment. Hopefully, the exhale relieves some of the acrid air of these theories of economic inevitability. We turn now to some reasons to be optimistic that a fresher breath is possible—that we can change the direction of our economy. Sacrificing the environment and people may not be necessary after all.

Constructing Freedom

Economics is not something that, like some force of nature, just happens. Economics is something we do. A vital place to recognize the social origin of economic forces is in the generally misunderstood dialogic relationship between the state and the market. Markets function best when the state intervenes least, we are often told. The glory of the West is its “free market” economy, as opposed to the failed centrally planned economies of the old Soviet Bloc. Here’s the classic definition of that glory, from an introductory economics textbook: “Markets in which governments do not intervene are called *free markets*.”⁴⁰

But recall the way government is hooked on the treadmill, too. Western politicians know that their political futures hang from the thread of economic growth, as this chapter has discussed. And recall the way that businesses encourage politicians to keep their focus on the economy through lobbying and political contributions. That’s because both politicians and businesses recognize that state intervention is, in fact, as central to capitalist “free market” economies as it is to a “centrally planned” economy. A heck of a lot of central planning, and central control, goes on in both.

Where would a market economy be without a police force and a court system to enforce contracts, limit fraud, regulate trade, and establish product standards?

Where would it be without a trustworthy money supply? Or without trade agreements with other nations and the political muscle (and sometimes military muscle) to back them up? Or without an independent body to enforce property rights, including patents and copyright? Otherwise you might try to steal from me, and I from you, without fear of retribution from anyone but each other. And no market society could last long today if it ran so roughshod over workers and the environment that its political legitimacy was undermined. Plus, there are all the other “free” services that government provides the market—like roads, an educated workforce, and an array of environmental professionals whose job it is to ensure a healthy and productive ecosystem. Moreover, in terms of sheer dollars spent, government is about 40 to 50 percent of the total economy in most Western nations—including the United States, that paragon of the free market, where the 2014 figure was 42 percent.⁴¹ The treadmill is hooked on government as much as the other way around.

But isn't this heavy role of government the main problem facing Western economies today? Sure, maybe we can't get rid of government entirely, but can't we get rid of all the red tape and regulation, or at least most of it? Can't we at least have a *freer* market?

We will address this question in different ways throughout the remainder of this chapter. First, let us pose a question in return: Freer for whom?⁴² Consider how government often intervenes precisely to protect and create a “free market.” Like the banning of nuisance lawsuits against CAFOs and the prevention of local control over where CAFOs can be placed. Is there any less regulation as a result? It is true that CAFO owners are freer to do what they want, without fear of retribution, but those who object to CAFOs are now a lot less free. It's much harder to sue CAFOs now in states that have passed such laws. If you meet an unsympathetic judge who deems your suit a “nuisance,” you'll have to pay the legal fees of the other side—a strong restraint on advancing any suit at all, no matter how solid you think your case is. And local people in these states can't use local zoning ordinances to control CAFOs either. Given that there are likely way more people who object to CAFOs than those who own them or work for them, one might well argue that the total amount of freedom went down in the process of protecting this “free market.”

Freedom can be like that. Freedom for one person may well entail constraint for someone else. As an old English proverb puts it, “Freedom for the pike is death for the minnow.” This is why philosopher Isaiah Berlin, from whom we get this proverb, used to speak of two kinds of freedom: *freedom-from*, the freedom from others stopping you from doing what you want, and *freedom-to*, the freedom to take agency over the conditions of your life, which is to say over other people. Berlin liked to call freedom-from *negative liberty* and freedom-to *positive liberty*. The pike eating minnows experiences negative liberty from anyone stopping it from gorging at the minnows' expense. If minnows could stop the pike, perhaps by enlisting the help of some piscine police force, they would experience positive liberty to take action against being gorged on.⁴³

Which makes it sound like free markets are about negative liberty and the absence of regulations, while positive liberty is what we get through regulation. So if you want more freedom-from—more negative liberty—you need deregulation. Many have read the implications of Berlin's argument this way.⁴⁴

But that is to see negative liberty in purely individualistic terms. For you to have freedom-from, someone else may very well have to be denied it. For CAFOs

to have freedom from complaint, others must be denied freedom to complain. In other words, freedom-from requires as much regulation as freedom-to. It's just a different kind of regulation. The “deregulation” that many call for in support of the negative freedom of the “free market” or a “freer market” is what we might call *negative regulation*, regulation-from—that is, regulation *from* interference—that prevents interference. The kind of regulation we are used to calling regulation is *positive regulation*, regulation-to—that is, regulation *to* interfere—that enables interference.⁴⁵

And both forms of regulation require copious lines of legal code in the statute books of every government. Take the U.S. Code of Federal Regulations. In 1980, it stood at 102,195 pages. By 2013, it ran to 175,496 pages, with thousands of pages added every year no matter whether Democrats or Republicans were in charge in Washington, D.C.—despite all the constant talk of “deregulation” and “reinventing government.”⁴⁶ But there was no deregulation here. Rather, it was mainly *re*-regulation of the negative sort, to the advantage of some and the disadvantage of others.

Freedom doesn't have to be *zero-sum*, as game theorists call situations in which one person's advantage depends upon another's disadvantage. Wise and just policy finds ways to help everyone so that there is more freedom for all. But in practice in economic matters, things generally don't work out in that happy way. In situations that encourage thinking about competitive self-interest, social actors typically have little regard for the interests of others. Indeed, the comparative disadvantage of others is generally exactly what they are after, by whatever means possible. Consequently, a “free market” is certainly no freer of politics than any other form of market.

The Corporation and Regulation

Nothing more viscerally represents the “free market” than corporations and the negative liberty they seek. We often see them as the wellspring of our productivity, and therefore grant them huge political privilege, privilege they use to enact negative regulation. But what really are these corporations that have so much power in our economy and our politics?

Corporations are legal devices, chartered at the state level, that allow individuals, firms, and other entities to join together in economic pursuits while protecting them from personal liability. That protection is negative regulation that gives them negative liberty from the moment of their chartering. Based on that state-sponsored liberty, the people or entities that join together typically invest in a corporation to make profit on their capital.⁴⁷ Investing money in a corporation to make some extra cash can feel like a natural next step for anyone with money sitting around. But in all reality, corporations are a legal creation dependent on the courts and the governments that sanctioned them.

That sanction increased hugely with the U.S. Supreme Court's *Santa Clara County v. Southern Pacific Railroad* decision of 1886. In that decision, the Court ruled that corporate shareholders had the same Fourteenth Amendment rights and liberties afforded to “natural persons,” as the courts call human beings. Over the next 20 years, courts across the country would expand the ruling to give corporations status as people, profoundly transforming individual rights by including the corporation.⁴⁸ Shortly afterward, the Supreme Court granted corporate stockholders “limited liability”—meaning that if the corporation went bankrupt or was sued, the owners and investors wouldn't be liable for any debts or settlements. Only the

company would, as a legal entity—more state-sponsored negative liberty for the owners and investors.

So there are huge advantages from gaining the right to call your business a corporation. Putting many people's capital together into one unit gives that business huge political influence, especially compared to the individual or family business competing against it, making additional negative liberty easier to attain. The immunity from personal risk offered through the corporation, and the power garnered by conjoining financial elites, was too much to resist. Between 1898 and 1904, industries worth \$7 billion, or about one-fifth of the country's GDP at the time, incorporated.⁴⁹

The legal sanctioning of corporations was immediately contested. Many farmers and their populist affiliates didn't want corporations. Neither did those we today know as libertarians, nor did socialists.⁵⁰ To our modern eyes, what a strange combination of dissenters: populists, libertarians, and socialists. But the advocates won the day, including those everyday people who simply thought bigger, collective firms were critical to U.S. dominance and success.

Now we struggle to balance the benefits of corporations with their social and environmental costs. Consider the benefits. Investors are protected from accidental bankruptcy, beyond the money they invested. If the pizza parlor down the street is sued for inadvertently serving spoiled food, the mom and pop who own it won't lose their house. Fair enough. But the use of incorporation can also be less honestly intended. Every state in the union stipulates in limited liability law that the identities of corporate investors remain hidden. When caught red handed for pollution, or when operating in the red, corporations sometimes plan a purposeful bankruptcy—what Loka and her colleagues refer to as *folding corporations* that go bankrupt and spontaneously reemerge at their convenience, leaving others with little recourse for environmental, financial, or social justice.⁵¹ The investors escape unknown with their capital mainly intact.

Take, for example, the manure spills we talked about earlier. When a CAFO is operated by an LLC—the acronym for a “limited liability corporation,” made possible by state statutes in the early 1990s—neighbors don't know who is investing in it. Neither does the government. So when there is a massive spill or a nuisance suit, who pays the price? Even with a lawsuit, it's extremely difficult to pierce the corporate veil that hides investors' identities. And in the case of pollution, LLCs have discovered a neat little move for sidestepping regulatory measures that increase with the size of an operation: Just subdivide into many linked businesses.⁵² It may look on paper like there are lots of different corporations, when the investors may all be the same. Consequently, they can dodge environmental protections and liabilities when something goes wrong, limiting the damage to one or two of the linked LLCs. And some LLCs are constructed precisely because the investors expect things to go wrong and don't want to pay for it. Politically, it's a dark, empty hole.

But not all LLCs pollute and pillage. So here's some better news—at least sort of better. Environmental sociologists William Freudenburg, Peter Nowak, Dana Fisher, and their colleagues point out that the environmental impact of different economic actors is highly variable.⁵³ Some industries are far more polluting than others. Think of oil refineries versus software developers. And some companies within the same industry are far more polluting than others. Think of big CAFOs versus organic farmers that raise small numbers of animals outdoors on pastureland. It turns out that most environmental damage comes from a relatively small

number of industries, and a relatively small number of companies within those industries. Freudenburg found, for example, that 46 percent of toxic releases in the United States come from the chemical industry, and yet the chemical industry is only 2.9 percent of the gross national product of the United States.⁵⁴ He then looked within one industry, the primary nonferrous metals sector—processors of primary (i.e., not recycled) ores other than iron. Here Freudenburg found that a single company, the Magnesium Corporation of America, accounted for 95 percent of all toxic releases in this industrial category, according to government records.

In most instances, a few “bad apples” are mainly responsible for spoiling the barrel of ecology.⁵⁵ *Disproportionality* is what environmental sociologists call this finding. The next question, then, is how do those bad apples get away with it?

Freudenburg argues that the privilege to pollute mainly comes about through political arguments that divert attention from disproportionality.⁵⁶ For example, a common argument against regulating polluters is that it would drive an industry either out of business or out of the country to a nation that doesn’t regulate it. This claim implies that all companies in that industry would be affected the same by the regulation. But if most of the pollution is coming from only a few companies in an industry, that means the rest of them shouldn’t be bothered much by regulations that force them to clean up. Why? Because they are already pretty clean. It also means that it is possible to be pretty clean—that alternatives are achievable.

This doesn’t mean that all economic actors will utilize those alternatives, though. Economics is fundamentally a social process—the outcome of the interests of various social actors, the power that those actors have, and the level of their concern for the interests of others. How an actor responds to economic pressure and environmental and community decline is a people thing, not just a money thing.

Classic Liberalism and Neoliberalism

Sometimes it’s hard to sort out what political route is best for our society and our environment. Consider some of the most common, divisive, and (frankly) tired adages. There’s Ronald Reagan’s “The nine most terrifying words in the English language are, ‘I’m from the government and I’m here to help.’” And there’s Franklin D. Roosevelt’s “A conservative is a man with two perfectly good legs who, however, has never learned how to walk forward.” They represent two ways of thinking increasingly at opposite ends of the political spectrum: The government is here to hold people back versus to help people progress.

The economy in recent decades has situated itself as the dividing point between these two ways of thinking. The market regulates itself, whereas the government inefficiently mismanages everything, say some. The market inevitably leads to inequality and environmental decline, whereas the government keeps things in balance, say others. Rhetorically, these different approaches have been used to sway voters to very different ends, ends that sometimes do not represent the ideological orientations they purport to represent.

Privatization is a case in point, one of the key tactics of the philosophy that less government is always best. Privatization is the use of the market to structure formerly uncommodified products like air, water, and wildlife, as well as the outsourcing of government activities to corporate contractors.⁵⁷ But, like with negative regulation, it doesn’t really work out that there is any less government with privatization.

Let's start with the first form of privatization: commodifying nature. What is more emblematic of life and reproduction than a seed? Seeds used to be a free gift, collected from the environment and passed on person to person, maybe with selection of the best traits first. Not very much government there. But by putting legal patents on thousands of seeds, backed up by government laws and regulations, companies like Monsanto have gained genetic rights to staple crops. As sociologist Jack Kloppenburg writes, "farmers of all types find themselves confronting commodified, patented/protected, high-priced, corporate seed."⁵⁸

The second form of privatization, outsourcing of government activities to private firms, is also growing rapidly. It's not really less government either. For example, there are now some 1,930 companies employed by the U.S. government just for top-secret work.⁵⁹ The recent launch of the government's HealthCare.gov? That was orchestrated by CGI Federal, a federal IT contractor that has 72,000 employees (only 11,000 of whom are employed in the United States). As of 2014, they had already earned \$4 billion from the federal government, and expected another \$8 billion in future contracts.⁶⁰ We're talking major amounts of money paid by taxpayers to the government, but funneled through the government to private industries. There may be fewer direct employees of the government through contracting, but no necessary reduction in taxes or regulations. And the supposed efficiencies never really seem to materialize.

Ideologically, how did outsourcing to corporations get mixed up with the notion of less government? And how did common property like the genetic information in seeds become something corporations could own exclusively? Mainly through an ideological transformation in our politics known as *neoliberalism*.

The term *neoliberalism* can be confusing. In the modern American context, liberalism usually means support for public ownership, government services, and explicit regulation (that is to say, positive regulation) of the market to ensure the provision of public goods like seeds, clean air, and economic equity. But the *classic liberalism* in neoliberalism refers to the nineteenth-century European use of the word *liberalism*: the defense of individual freedom, including private property rights, against feudal control by the aristocracy. Liberals thought the time of the aristocracy was passing; conservatives disagreed and supported the old order of the *ancien régime*, as the French called it. In time, this defense of individual property rights led to the promotion of free trade, unencumbered markets, and corporate expansion as the solution to humanity's problems. These developments in neoliberal philosophy may sound in keeping with its nineteenth-century roots. But along the way, especially during the 1930s, neoliberalism drifted from protecting the rights of the individual to protecting the rights and privileges of corporations—which, after all, are now legally defined as individuals.⁶¹

Are they? And does neoliberalism necessarily mean more freedom? Freedom for whom? The corporation or the individual? Investors or community members?

The Treadmills Within

But the direction our economy takes is not only set by the tug-of-war between individuals and corporations, and corporations and the government. There are tugs of war within us too. For example, we want the ease and comfort we think comes with economic growth and high rates of production. Yet we think the only morally

legitimate way to achieve ease and comfort is through hard work. The economy depends in part on an economy of morals, morals we struggle with.

The virtue of hard work is one of our deepest economic values, although it is historically recent. (Chapter 7 considers the origin of this notion of virtue in some detail when we explore the theories of the sociologist Max Weber.) We now usually regard laziness as somehow immoral, even when working harder will only secure more wealth than we physically need. We work hard not only to maintain our footing on whatever economic treadmills we contend with, but also because we have internalized the notion that hard work is virtuous.

The idea that hard work is virtuous is particularly pronounced in the United States and Japan, as many have commented (see Figure 2.2 in Chapter 2). The prevalence of this attitude is likely part of the reason vacation time is typically about two weeks a year in these two countries. Japanese and American workers have not fought harder for longer vacations in part because doing so would seem culturally inappropriate, which in turn perpetuates the cultural inappropriateness of long vacations. Meanwhile, both countries fall ever deeper into the cycle of “work-and-spend” discussed in Chapter 2. While material pressures make us work harder to pay the bills, we also work hard because of pressures that come from within. At some level, most of us actually want to work hard—which we think reflects well on us—although probably not as hard as economic treadmills often require.

Given the speed increasingly required to stay on the treadmill, it is probably materially advantageous that most of us are committed to the idea that hard work is a virtue. This advantage does not mean, however, that external forces determine internal ones. The relationship between external forces and internal forces is a dialogical one. True, hard work helps one stay on a treadmill, but hard work also leads to an acceleration of a treadmill—thereby creating conditions that encourage people to work even harder. Internal social factors such as a person’s values thus support and are supported by external social factors like the economic speed of a treadmill. The treadmills within and the treadmills outside create each other.

Also, John Bellamy Foster points out that the goal of the economy actually isn’t production (and it certainly isn’t underproduction, either).⁶² Rather, what keeps people going on it is the desire for *accumulation*—more money, more stuff, and the sense of greater environmental and social power and ease that comes with more of both money and stuff. It’s about *more*, stupid. Production is just the way to get it. And as Chapter 2 discussed, the desire for more is not some kind of unchanging and universal inner hunger, even though it often appears that way from the perspective of our own time and place. But it is a hunger that, by definition, is never satisfied. *More* always wants more. It’s a treadmill too.

The Dialogue of Treadmills

Money and markets are not merely material matters. The internal treadmills of hard work and *more* are cultural values. But these cultural values interlock with the whizzing movements of the treadmills of production and consumption. Hard work is the moral motor of production, and *more* is the moral motor of consumption. (You might not think *more* is very moral, but we do spend a lot of mental energy trying to legitimate it nonetheless.) This interlocking shows, once again, the dialogue between the material and the ideal.

Of course, the treadmills of production and consumption themselves interlock as well (see Figure 3.4). Increasing the pace of the treadmill of production increases the pace of the treadmill of consumption, and vice versa. But that whizz and whir is both material and ideal. Increasing production increases the treadmill of the virtue of hard work, and vice versa. As well, increasing consumption increases the treadmill of *more*, and—you guessed it—vice versa.

Which means that that there is still another layer of interlocking. If production increases the treadmill of hard work (and vice versa), and consumption increases production (and vice versa), then consumption increases the treadmill of hard work, too (and vice versa). It works out the same for *more*. It's in dialogue with production as well as consumption, as both are in dialogue with each other.

Figure 3.4 Interconnected treadmills: The treadmills of production and consumption each propel the other along, and their social and environmental effects.



Source: Matthew Robinson and the authors.

Stick with us here. Let's consider first the interaction of *more* with both production and consumption. For example, the desire for *more* is propelled by the treadmills of consumption and production through the relationship between *more* and profit. Because you need profit to survive on the production treadmill, it encourages you to regard profit as a virtue. Yet in order to demonstrate your success in attaining the virtue of profit, you need to consume *more*. You need to show you've done it. You need to buy a BMW or its equally conspicuous equivalent. Of course, consuming *more* is a desire that, because of the consumption treadmill, you likely already had. We want profit to consume, just as we consume to demonstrate profit. This, too, is a dialogue—although perhaps not one well calculated to support sustainability, environmental justice, or the beauty of ecology.

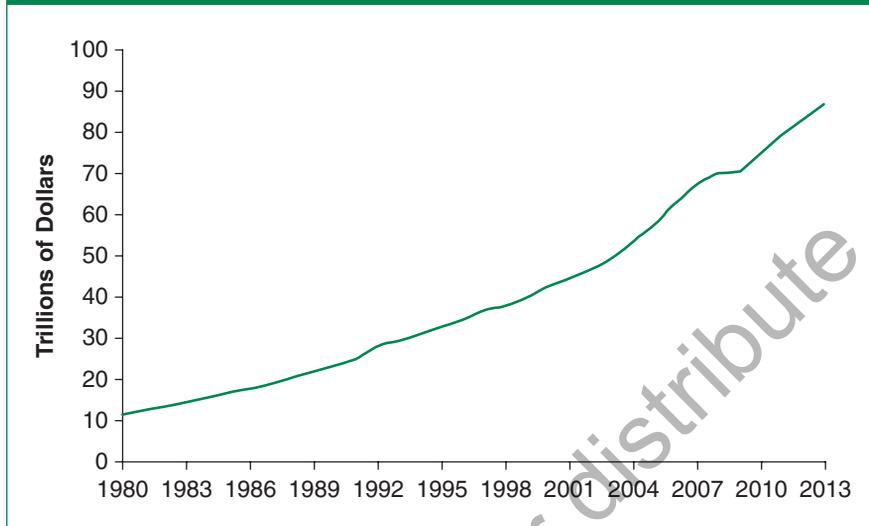
Hard work is another internal treadmill that is propelled by both production and consumption. Hard work keeps us going on the production treadmill, as the previous section describes. But it also keeps us going on the consumption treadmill by helping us to rationalize inequalities in consumption. “God helps those who help themselves,” we often hear. Perhaps the real theological help is moral: relieving guilty consciences through the message that it's all right to consume *more* as long as you worked hard for it.

The internal treadmills of *more* and of hard work, then, dialogically connect the treadmills of production and consumption. Of course, you cannot have production without consumption, and vice versa—at least not for long—as classical economics readily recognizes. But classical economics typically treats production and consumption as if they were separately generated phenomena, balanced by price. That balancing is often the only acknowledgment of dialogical interconnections. But what a fully dialogical approach suggests is that production and consumption do not merely balance each other; they create each other.

Moreover, the treadmills of production and consumption do not just mutually condition internal values like hard work and the desire for *more*. They also dialogically organize the external circumstances in which we have these values. Here is where economic inequality plays its most important dialogical role. The inequality created by the treadmill of production helps create the conditions under which the Joneses are constantly rising above us, fueling the treadmill of consumption. That fueling, in turn, creates the opportunity for further acceleration of the twin production treadmills and their frequently unequal economic outcomes. It's a vicious dialogical circle: The production treadmill creates inequality, which creates the consumption treadmill, which creates more inequality and a further speeding of the production treadmill, thus keeping the whole cycle whirling ever faster. On a global scale, production has increased every year for the last three decades (see Figure 3.5).

But because this circle is dialogical, its vicious outcome is not inevitable. For one thing, there is also a potential twin to the treadmill of consumption: a *treadmill of underconsumption*. We don't mean competitive starvation here. Rather, we mean what Veblen might have called “conspicuous nonconsumption,” and its moral siblings: “conspicuous nonleisure” and “conspicuous nonwaste.” If your goal is to show off—and why not, at least a little—a reversal of the now-common Veblenesque logic will sometimes do very nicely. Consider monks, nuns, and the Amish in their plain dress, sworn to a life of simplicity and poverty. Or consider your friend the eco-freak, decked out in patched and recycled garb from the thrift shop. Or even go back to your grandparents' days, where a few very finely constructed pieces of clothing were treasured, cared for, and a little more timeless. Less is more. Yes, there

Figure 3.5 Accelerating treadmills: Rising gross world product, 1980–2013, even despite the Great Recession.



Source: Based on Konold and Espinal (2014).

can be some showing off here. For these and other forms of conspicuous nonconsumption definitely come with a strong statement of environmental power: I am so secure in myself and my status that I don't have to overconsume to demonstrate my worthiness. There can even be a little competitiveness at work here, with ever-newer standards of what counts as conspicuous nonconsumption, ever-newer fashions of down-market display. Those worn-looking T-shirts are in style now, after all.

Of course, we don't see a lot of conspicuous nonconsumption among the wealthy countries and wealthy classes today. But it is certainly imaginable, and within our powers to bring about. And why not—at least a little?

Unnecessary Sacrifice

All of this is to say that no, we aren't inevitably stuck with spiraling consumption, irresponsible production, global pillaging, and people and places that we sacrifice for elusive GDP that benefits the few at the expense of the many. There are spaces for dramatic reform and equitable economic exchange as we become conscious, integrated producers and consumers. In short, aware people realize they are in this thing—this economy and this ecology—together.

"I wouldn't want to live beside one of those things," the state representative said to a group of concerned citizens visiting the capital to advocate for more community capacity to keep out CAFOs. "My idea is to let the free market take care of this."

He was gently letting community members know that he couldn't advocate on their behalf, but he was sorry that they had to live next to CAFOs that polluted their air and water.

The group sat quietly for a moment.

“What’s free about it?” Loka said, after a moment. “The grain for these facilities is heavily subsidized by the government and parts of these facilities paid for by government funds.” This is true. The U.S. government heavily subsidizes the supposed free market of grain production, and spends a lot to clean up the messes it creates, including offering tax cuts for after-the-fact pollution control.

“I can’t disagree with that,” the representative said. “There’s people in my party working on that,” he said.

“What about my rights as a property owner?” said Jim, an Angus cattle farmer in his early 60s who raised his animals on grass. “If they want to pollute the water and the air around the facility, they should have to purchase all the land at least a quarter-mile around it.”

Jim’s suggestion made sense, but everyone knew the investors wouldn’t agree to that. It would put them out of business if they had to pay the property costs that they elbowed onto others. The group was silent again for a moment.

“I can’t compete with them,” Jim began again, referencing the CAFOs. “I can’t make enough money when I go to sell.”

Everyone crammed into the little office sympathized. It was hard to see a small farmer struggle. Jim sold his animals at the sale barn. He didn’t do direct marketing. His ethics and environmental and animal-friendly methods didn’t matter to consumers of his meat because there was no way for them to know him and to know about his grass-based style of farming. That visibility problem again.

“You can make money at this,” Loka said, meaning grass-based farming, and looking at Jim and the representative. It now had been three years since the start of Loka and her husband Jason’s direct customer sales. Sure, it was hard, dogged work. But they were making more every year—a modest amount, but business was growing. More and more customers were asking for pasture-raised meat. Loka and Jason didn’t have enough beef to supply the demand, even in their small rural community. There was reason for optimism.

“We’re turning a profit,” Loka said. “People want this. The market’s growing.”

And it’s up to us as consumers, producers, citizens, and neighbors to make it happen, whether we are talking about alternatives to CAFOs or to so many other ecologically and socially damaging aspects of our economy.

Social Creation of Economics

As Alan Schnaiberg, John Logan, Harvey Molotch, and William Freudenburg have reminded us, and as we have tried to amplify, capitalism is not a force of nature. It’s a force of politics—what sociologists often call *political economy*, the interplay of politics and economics, another dialogue. Its many interconnected treadmills result from the actions of human agents pursuing what they take to be their interests and sentiments. If we do not like the result, it must be because we have not fully understood what our interests and sentiments are or because the current distribution of power has prevented us from attaining our true interests and sentiments.

To achieve the outcomes we desire, we must first recognize the *social creation of economics*. The pinching pressures of treadmills encourage us to think of the economy as something outside of us, over which we have little control, as an external structure to which we must submit. And true, the economy has power over us. But we also have power over it. The economy is a result of countless individual decisions, as classical economics has long taught, with effects that present themselves

as external structures. Yet it is precisely the fact that the economy begins with real human agents that makes it dialogically possible to direct the economy—by changing the circumstances in which we make our individual decisions.

Those economic circumstances are the result of bargaining among social actors such as the state, labor, and management. They are the result of legal precedents, of moral judgments, and of power relations within society. They are the result of the invisibility of externalities and the current limits to our imagination. They are the result of negative regulation and positive regulation, government and liberty, external treadmills and internal ones too. Economies create societies, but societies create economies. Through bargaining between competing interests, through the selective involvement of the state, through the dynamics of the distribution of social power, through the moral visions of those involved, we shape the economic structures that shape us.

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