Chapter 13

Corporations

Everything we discussed in the previous chapter applies to corporations, and some of the examples we used in the previous chapter were corporations. But because they are actors in so many societal dilemmas—they're legal persons in some countries—they warrant separate discussion. But before examining how societal dilemmas affect corporations, we need first to understand the basic supply-and-demand mechanics of a market economy as a pair of societal dilemmas.

Suppose a local market has a group of sandwich merchants, each of whom needs to set a sale price for its sandwiches. A sandwich costs \$4 to make, and the minimum price a merchant can sell them at and stay in business is \$5. At a price of \$6 per sandwich, consumers will buy 100 of them—sales equally divided amongst the merchants. At a sale price of \$5 per sandwich, consumers will buy 150—again, equally divided. If one merchant's prices are lower than the others', the undercutter will get all the business.

The merchants face a societal dilemma, an Arms Race akin to the advertise-or-not example in Chapter 5. It's in their collective group interest for prices to remain high; they collectively make a greater profit if they all charge \$6 for a sandwich. But by keeping their prices high, each of them runs the risk of their competitors acting in their self-interest and undercutting them. And since they can't trust the others not to do that, they all preemptively lower their prices and all end up selling sandwiches at \$5 each. In economics this is known as the "race to the bottom."

Societal Dilemma: Setting prices.			
Society: All the merchants.			
Group interest: Make the most money as a group.	Competing interest: Make the most money individually, and in the short term.		
Group norm: Keep prices high.	Corresponding defection: Undercut the competition.		
To encourage people to act in the group interest, the society implements a variety of societal pressures. Moral: The group encourages loyalty. Reputational: The group reacts negatively to those who break the cartel. Institutional: Various price-fixing schemes. Security: Internet price-comparison sites.			

This societal dilemma is in continuous force. Day after day, month after month, the merchants are under constant temptation to defect and lower their prices, not just down to \$5, but even lower, if possible. The end result is that all of them end up selling sandwiches as cheaply as they possibly can, to the benefit of all the customers.

It's obvious how to solve this: the merchants need to trust each other. Like the mall stores at the beginning of Chapter 9, they can collectively agree to sell sandwiches at a minimum price of \$6 because they know it benefits them as a group. This practice was common throughout history. The medieval guild system was a way for sellers to coerce each other into keeping prices high; it was illegal to engage in trade except through the guild, and the system was enforced by the king. Cartels are a more modern form of this; oligopolies are another. Another way is to convince the government to pass a law outlawing cheaper sandwiches. Whatever name you use, the result is price-fixing.

Merchants like doing this, because keeping prices high is profitable. As <u>Adam Smith</u> said, "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."

Price-fixing has had varying degrees of success throughout history. Sometimes it lasts for a long time. De Beers has successfully controlled the diamond market and kept prices artificially high since the 1880s. And sometimes it collapses quickly—the global citric acid cartel lasted only four years and the DRAM computermemory cartel just three. Sometimes buyers, such as Gateway and Dell in the DRAM price-fixing case, have a hand in breaking cartels, but it's usually government. Similarly, it's usually government that helps support them. Smuggling and other commerce often take place outside the cartel, but the cartel still works as long as they're kept to a minimum.

That's not good enough for a modern market economy. It is a basic tenet of capitalism that competition—sellers competing for buyers—rather than cartels are what should set prices. Capitalist society wants universal defection amongst sellers, because we recognize that a constant downward pressure on prices benefits the economy as a whole.

What we realize is that there's another societal dilemma functioning simultaneously and competing with the first.

Societal Dilemma: Setting prices.	
Society: Society as a whole.	

Group interest: Competition.	Competing interest: Make the most money as a group.		
Group norm: Do not collude in setting prices.	Competing norm: Keep prices high.		
To encourage people to act in the group interest, the society implements a variety of societal pressures. Moral: The belief that price-fixing is wrong and that competition is good. Reputational: Being known as the merchant with the lowest price gives you an advantage, and being known as a price-fixer makes you look sleazy.			
Institutional: Anti-trust laws. Security: Various price-comparison websites.			

Each merchant is in a societal dilemma with all of the other sandwich sellers; they're also in a larger societal dilemma with all the rest of society, including all the other sandwich sellers. Cooperating in one means defecting in the other, and in a modern market economy, the latter dilemma takes precedence.

This works to the buyer's advantage, although more in theory than in practice. The previous societal dilemma pushes prices down only when there are more salable goods than there are buyers, and sellers are competing for buyers.

In some cases, the buyers can get stuck in a societal dilemma as well, pushing prices up. This is the other half of a market economy: buyers competing with each other. Imagine that a sandwich seller has twenty sandwiches left, and there are forty people who want to buy one—including customer Bob. The normal price for the sandwich is \$5, but the seller has raised his price to \$6.

Here's the new societal dilemma. Bob is actually willing to pay \$6 for the sandwich, but he'd rather get it for \$5. So would everyone else. If everyone cooperated and refused to pay \$6 for a sandwich, the seller would eventually be forced to lower his prices. But there's always the incentive to defect—and be sure of getting a sandwich—rather than cooperate so that everyone who gets a sandwich pays only \$5.

Societal Dilemma: Competing on to-buy prices.			
Society: All the customers.			
Group interest: Keep prices low.	Competing interest: Getting the item you want.		
Group norm: Don't bid up the price of items.	Corresponding defection: Differing to pay more for an item.		
To encourage people to act in the group interest, the society implements a variety of societal pressures. Moral: It's unfair to bid up merchandise. Reputational: There are negative reputational consequences for bidding up merchandise and for overpaying Institutional: None. Security: None.			

Of course, this kind of thing never happens at sandwich shops. But it regularly happens in real estate markets, when buyers bid amounts higher than the asking price in order to out-compete other buyers for properties. It also happens with popular concerts and sporting events, where scalpers create a secondary market with higher prices as more buyers compete for a limited number of seats.

Auctions are fueled by this societal dilemma. As long as there are more bidders who want an item than there are items, they'll compete with each other to push prices as high as possible. And auctions implement societal pressures to prevent buyer collusion. For example, eBay makes it difficult for buyers to contact each other and collude.

A similar mechanism occurs with clothing in department stores. All department stores eventually mark down their seasonal inventory to get rid of it. Selling it cheap, or even at a loss, is better than keeping it on the shelves or in a storeroom somewhere. If Alice finds something she wants to buy early in the season, she is faced with a societal dilemma. If she cooperates with everyone else and refuses to buy the clothing at full price, eventually the entire inventory will be discounted—drastically. But she risks others defecting and buying the garments at full price, and there not being any left of what she wants at the end of the season for the store to discount. Some discount retailers such as Outnet.com explicitly make use of this societal dilemma in their sales techniques. A garment starts out at full price, and is discounted more each week, until it reaches a final—very large—discount. Shoppers are truly faced with a societal dilemma: buy now at the higher price, or wait for a lower price and potentially lose the garment to someone else. Many antique shops and consignment stores use this strategy, too. As long as multiple buyers want the same item, it works. 4

On the other hand, traditional buying clubs allow buyers to cooperate and push prices down. In addition to minimizing distribution and presentation costs, Costco and Sam's Club negotiate lower prices on behalf of their members.

Both of these pairs of societal dilemmas assume that, within each subgroup, buyers, sellers, and sandwiches are interchangeable. But of course that's not the case. Humans are a species of innovators, and we're always looking for ways to sell more profitable sandwiches and buy cheaper ones. The seller has two basic options:

• Merchant Alice can sell a cheaper sandwich. If Merchant Alice can substitute cheaper ingredients or use a cheaper sandwich-making process, she can either sell her sandwiches more cheaply than the competition or sell them at the same price with a greater profit margin—both options making her more money. It might not work. If the customers notice that Alice's sandwiches are of poorer quality than Bob's, they'll value them less. But if the customers don't notice that the sandwiches are any worse, then Alice deserves the increased business. She's figured out a way to make sandwiches cheaper in a way that makes no difference to the customer.5

• Merchant Alice can sell a better sandwich. Maybe she finds more expensive but tastier ingredients, or uses a more complicated sandwich-making process. Or she could make the sandwich-buying experience better by serving it with a smile and remembering her regular customers' names. She can either sell that better sandwich at the same price, bringing her more customers and more profit, or she can sell the better sandwiches at a more expensive price—whatever price the customers think those new sandwiches and the premium experience are worth. Of course, this requires that the customers value this better sandwich more. If they do, then Alice also deserves the increased business.

Both of these things happen all the time. Innovation is one of the important things a market economy fuels. On the buyer's side, the ways for customers to innovate are more limited.

Yes, this is all basic supply-and-demand economics; but it's economics from the perspective of societal pressures. You can look at a market economy as two different pairs of competing societal dilemmas: one preventing sellers from colluding, and the other preventing buyers from colluding. On a local scale, moral and reputational pressure largely enforces all of this. As long as buyers know the prices sellers are selling at and the sellers know what buyers are willing to pay—and this is generally true in local public markets—competition works as a price-setting mechanism. And if there are enough sellers, it's hard for them to collude and fix prices; someone is bound to defect and undercut the group. Sellers can try to differentiate their products from each other—either by selling less-desirable variants at a cheaper price or more-desirable variants at a higher price—and buyers will compete against each other to set new prices. The best way to succeed in this marketplace is to offer the best products at the lowest prices: that is, to have the best reputation for quality and price. There need to be enough buyers and sellers to make the market fluid, and enough transparency that the buyers know what they're buying; but if those things are true, then it all works.

It's only when you scale things up that these systems start failing. Societal pressures don't work the same when the sellers are large corporations as they do when they're sole proprietors in a public market. They don't work the same when the products are complicated—like cell phone plans—as they do when the products are simple. They don't work the same when commerce becomes global. They don't work the same when technology allows those corporations to defect at a scope larger than their own net worth.

During the early years of Prohibition, there was an epidemic of paralysis in the American South and Midwest, caused by "Jamaica Ginger," a popular patent medicine. It was mostly alcohol, but about 500,000 bottles were laced with what turned out to be a nerve poison. It's hard to imagine a reputational pressure system being effective enough to prevent this kind of thing from happening. Sure, the company that sold this product was vilified, but not before tens of thousands of people were affected. (The "United Victims of Ginger Paralysis Association" had 35,000 members.) And, in fact, this incident led to the passage of the 1938 Food, Drug, and Cosmetic Act and the establishment of regulations requiring pre-market approval for drugs.

Corporations are organizations. They come in all sizes. The company that made all that Jamaican Ginger consisted of two guys and an office; many corporations employ more than 100,000 people; and Wal-Mart employs over 2,000,000. They have some of the same characteristics as individuals—they try to maximize their trade-offs, they have a self-preservation instinct, etc.—but they are not individuals. In some very important ways, they differ from individuals.

These differences may affect corporations' defection characteristics:

- They have a single strong self-interest: the profit motive. The case can be made that it's the only relevant
 interest a corporation has. A corporation is legally required to follow its charter, which for a non-profit
 corporation means maximizing shareholder value. Individuals have many more competing motivations.
- They try to hire people who will maximize their selfish interest. The people who run corporations, as well as the people promoted within them, tend to be willing to put the corporation's selfish interest (and sometimes their own selfish interest) ahead of any larger group interest. Individuals can't hire arms and feet selected to meet their needs.
- They can be very large in several dimensions. They can have a lot of assets, products, sales, stores, and employees. This increases their potential scope of defection: they can defect with greater frequency, and each defection can have greater intensity.
- They can spread themselves over a large geographical area, so much so that they become unmoored from any physical location. This reduces the effectiveness of institutional pressure that's tied to physical location: laws. It also reduces moral and reputational pressure against senior executives in those corporations, as they can remain socially isolated from those they harm.
- They can be complex, especially if they're large. This creates more internal subgroups at varying scales and intimacies, and the competing interests within them can change what they do. This gives them more options for evading accountability. It can also make it more difficult for people acting locally to determine what the competing interests actually are. Sometimes a single corporation can encompass different business units that compete directly with each other.
- They can be powerful. The combination of money and size can make corporations very powerful, both politically and socially. They can influence national and local legislation.
- Millions of people depend on corporations for their livelihood. When a major corporation has problems—or even if it makes strategic decisions about automating, outsourcing, shutting down or starting up new

product lines, and so on—many people and their families are affected. Whole communities can be affected. This means there are unintended consequences to many societal pressure systems.

- They can be difficult to punish. Corporate employees or owners are not the same as the corporation. Also, punishing a corporation can have ripple effects through society, hurting those who were in no way responsible for the corporation's misdoings.
- They can live forever. They are not tied to their founders, or to any particular people. They can live far longer than human lifespans.
- They have more to lose than individuals do. A damaged reputation can have much larger effects on corporations than on individuals, especially the big ones. This makes them more conservative.

Because of these differences, societal pressures work differently. Moral pressure is dampened in corporations. We've already seen in Chapter 9 that adding financial incentives tends to trump moral considerations. At the extreme, by telescoping the complexities of human morality into a wholly financial risk trade-off, corporations can largely relieve themselves of moral considerations. We also saw in Chapter 12 that morals are dampened in hierarchical group settings. The research is pretty clear on this point.

The upshot, to paint with a broad brush, is that corporations' risk trade-offs are much more focused on making a financial profit than individuals' are. People are emotionally complicated, and will regularly forgo money in exchange for more subjective benefits. Corporations, because of their group nature, are simpler; they are far more likely to choose the more profitable trade-off. To take a familiar example, it's far easier for a chef/owner of a restaurant to forgo some profit to create the sort of restaurant that gives him the most creative satisfaction, while a corporate-owned restaurant chain will be more concerned about consistency and the bottom line.

Another example is a garment or shoe designer buying goods made in <u>overseas sweatshops</u> staffed with child labor. An individual might refuse to do that on moral grounds, recognizing that she is going to have to pay more for those goods made elsewhere and deliberately forgo the extra profits. A corporation is more likely to buy the goods, as long as it's legal to do so. And, as we've seen in Chapter 12, the person who is in charge of making this decision will do better personally if he ignores his own moral considerations and cooperates with his employer. Even worse, if the corporation doesn't maximize profits, it risks a shareholder lawsuit.

Additionally, market competition encourages sellers to ignore moral pressure as much as they can. Imagine if you were in a corporate boardroom, discussing the Double Irish tax loophole and how it could save your company millions. After it has been explained how the maneuver is perfectly legal, and how other companies are doing it, how far do you think a "but it's immoral" argument is going to go? Even if you don't want to do it, if you don't and your competitors do, you'll be uncompetitive in the marketplace—reminiscent of the sports doping example from Chapter 10. Morals have nothing to do with it; this is business. Likewise, on a smaller scale, hospitals tend to replace management teams who don't exploit Medicare billing loopholes, or engage in illegal upcoding, with teams that do.

Even when a corporation engages in seemingly altruistic behavior—investing in the community, engaging in charitable activities, pledging to follow fair labor guidelines, and so on—it is primarily doing so because of the value of increasing its reputation. It's only a bit over the top to call corporations "immortal sociopaths," as attorney and writer Joel Baken did. For corporations, the closest thing they have to morals is law. The analogy is pretty precise. Morals tell people what's right and what's wrong; the law tells corporations what's right and what's wrong. If corporations behave morally, it's generally because they believe it is good for their reputation, and to a lesser extent because it's good for employee morale. This is less likely to be true with smaller corporations run by individuals or small groups of individuals; there, the corporation is more likely an extension of the person.

Or as <u>Baron Thurlow</u>, a Lord Chancellor of England, put it sometime before 1792: "Corporations have neither bodies to be punished, nor souls to be condemned, they therefore do as they like." In more modern language, John Coffee wrote that corporations have "<u>no soul to damn</u>; no body to kick." Or no soul to damn;

Reputational pressure can also fail against corporations. There's a belief that the market's natural regulation systems are sufficient to provide societal pressure, and that institutional pressure—laws and regulations—are both unnecessary and have harmful side effects. From the perspective of this book, this is just another name for reputational pressure.

Let's take an example: toxins in bottled water. Assume there's no institutional pressures, only reputational. Consumers decide for themselves what sort of toxin levels they are willing to tolerate, and then either buy or don't buy the product. (The assumption here is that removing the toxins costs money, and will result in a more expensive bottle.) Companies that sell toxin-free water enjoy a good reputation. Companies that allow too much toxin in their bottled water face a diminished reputation, and as a result, will reduce those toxins in an attempt to repair their reputation. If this works, it effectively "regulates" the bottled water companies.

We already know how reputational pressures fail when arrayed against an individual, and those failures are even more likely in the case of corporate reputation.

• The corporation will try to manage its reputation. Just as a person tries to accentuate his good qualities and minimize his bad ones, corporations do the same. The difference is that corporations will employ people whose entire job is to do this. Corporate reputation management equals public relations, and corporations spend a lot of money on advertising—\$130 billion annually in the U.S. alone. The science of advertising has completely changed over the past couple of decades. Today, it's more like psychological manipulation with a healthy dose of neuroscience. As such, there can be a large difference between a corporation's behavior and what the public thinks is the corporation's behavior. It

can be hard to remember the relative toxicity levels of different bottled water brands when the corporations are all engaged in advertising designed to make you believe you'll be more successful with the opposite sex if you would only drink their product.

- For reputation to work as a societal pressure system, there needs to be transparency. But consumers might not know enough about the relative toxicity levels to have it affect the reputation of the various companies. (They might not know what chemicals are in the water, they might not know at what concentrations those chemicals are toxic, and they might not know the toxic effects of those chemicals.) Corporations can be very private, especially about things that make them look bad. Sure, testing companies like Consumers Union can give consumers information about the various bottled water companies, but there seems to be very little demand for that sort of thing. Salience matters a lot, here. When you want a bottle of water, you're thinking about your thirst—not about independent third-party evaluations of water quality. To give a real example, corporations have successfully fought the labeling of genetically modified foods, so consumers aren't able to decide for themselves whether to eat them.
- Corporations might co-opt the testing and rating process. Those "independent third-party evaluations" aren't always so independent, and without transparency, consumers won't know.
- The damage resulting from the bad behavior might be so severe that no reputational consequences would be enough. Imagine that the bottled water is toxic enough that people start dying. Sure, the company will be out of business. But that seems like an inadequate penalty for killing people. And while this is an extreme story, there are lots of real-world examples of corporate decisions resulting in long-term disease and even death. In 2007 and 2008, at least ten Chinese companies produced contaminated batches of the blood-thinning drug heparin, substituting a cheap synthetic ingredient for a costlier natural one. At least 150 people died as a direct result of the contaminated drug; we may never know how many secondary deaths or related illnesses there were.
- There can be a long time lag between the bad behavior and the reputational consequences. If the toxin in the bottled water is slow-acting, people might not know about its effects for years or even decades. So a corporation could continue selling toxin-laced water for a long time before it suffered any reputational damage. Remember "I'll be gone, you'll be gone"? That's an economically rational self-interest strategy in that instance.
- Consumers might not be able to penalize the company that's making the bottled water. In an open-air market, customers know who their suppliers are. In the complex world of international outsourcing and subcontracting, it can be much harder. In 2011, Cargill recalled 36 million pounds of ground turkey because of salmonella risk. None of that turkey was sold under the Cargill name, making it difficult for customers to penalize Cargill. In 2005, the data broker ChoicePoint allowed a criminal group to steal the identifying information of 140,000 consumers. If consumers wanted to penalize the company by not doing business with them anymore, they couldn't—consumers aren't ChoicePoint's customers.
- The profit resulting from the bad behavior might be large enough that it'd be worth the reputational loss. If customers have no choice but to buy the bottled water—maybe there's no competition and the groundwater is even more toxic—then the corporation doesn't have to worry about what customers will think. Less-extreme versions of this scenario happen all the time in the real world; many industries benefit from the difficulty customers have in switching to a competing product. 11

All this is made worse by the various substitutes people use in place of direct reputation when it comes to brands. <u>There's recognition</u>: people buy what is familiar to them. <u>There's social proof</u>: people buy what others buy. There's even something called <u>attribute substitution</u>: people buy the red bottle because they like the color red and don't have any other way of choosing. These are some of the reasons consumers can be manipulated so easily.

Reputation relies on transparency to work, but for many modern products, the seller knows a lot more than the buyer. There's a general economic theory about this, called a lemons market. Both experiment and observation demonstrate that in a lemons market, bad products drive out good products. That is, if one company is selling cheap toxic water—or cheap unhealthy sandwiches—and the buyer doesn't know the difference between the good products and the cheap ones, he'll buy the cheap ones, and competitors will be pressured to make their products equally cheap and equally bad.

What we know about reputational pressures is that they work best in small groups where there are strong social ties among the individuals. A sandwich seller in a local public market probably doesn't need a whole lot of institutional pressure. He's part of a community, and if his sandwiches start making people sick fast enough that they notice the connection, no one will buy them anymore. But just as this sort of security system doesn't scale for individuals as the community gets larger, social ties weaken, and the value of the items being bought and sold increases, it doesn't scale for corporations, either. Globalization is making the effects of reputational pressure weaker. As a result, the effects of defection are greater. Three examples:

- In 2011, the pharmaceutical giant <u>Glaxo Smith-Kline</u> was fined \$750 million for marketing drugs manufactured in a Puerto Rican plant whose managers ignored numerous FDA letters warning that products were likely contaminated.
- Hundreds of people in Haiti, Panama, and Nigeria died of kidney failure in the 1990s and 2000s after
 consuming medicinal syrups manufactured with toxic diethylene glycol—an industrial chemical used to
 make plastics. Economically minded manufacturers had secretly substituted the toxic chemical for the
 more expensive, but nontoxic, glycerin.
- Starting in the mid-1990s, the Ford Motor Company knew that its Explorer model was prone to rollover,

but didn't do anything to fix the problem until 2002. Until they did, there were 185 deaths and 700 injuries resulting from the problem.

Just as moral and reputational pressures can fail against corporations, so can institutional pressures. We've discussed some of the ways they fail against individuals in Chapter 9: interpretation, loopholes, lack of enforcement. These failures can be more severe in corporations, because corporations can afford more and better lawyers to figure out how to evade laws. And law enforcement is much more consumer-friendly when it comes to dealing with individual defectors. If someone steals your wallet, you know how to call the police. If a corporation breaks the law, whom do you call?

Fines can be an effective institutional penalty, but can fail if they're too small. The DeCoster family egg farms, responsible for the huge salmonella outbreak in 2010, had been repeatedly fined for health violations for over ten years. In 2011, the large pharmaceutical company Merck Serono agreed to pay a \$44.5 million fine for illegally marketing the drug Rebif. That sounds like a lot, until you realize that the annual sales of the drug were \$2.5 billion and the misconduct occurred over an eight-year period. It's no wonder the firm was a repeat offender; the fines were just a cost of doing business. Another example: the penalties for using child labor are so small in some countries—\$59 to \$147 in Egypt, \$470 in India, \$70 in Kenya, \$47 to \$470 in Nicaragua, \$25 to \$253 in the Philippines—that it makes financial sense for Western companies to defect. In Chapter 11, I mentioned the fake anti-virus industry. One company largely ignored the Federal Trade Commission prosecution because it was making more money than the fine was likely to be 12

We discussed other societal pressure failures inside corporations in the previous chapter: employees of a corporation defecting from that corporation, employee loyalty that encourages cooperation with the corporation and defection from society as a whole, and employees defecting from a corporation to benefit that corporation. Additionally, two of the differences between corporations and people listed above—that millions of people depend on them for their livelihood and that punishing them can have ripple effects through society—mean that sometimes it's in society's best interest to not punish defecting corporations: a fact a smart corporation can use to its advantage.

There is one more societal pressure failure that is unique to large and powerful corporations: the co-option of institutional pressure to further their own self-interest.

Imagine a societal dilemma, one that affects a rich and powerful interest: probably a corporation or an industry, but maybe a person or group of people. It could be the oil industry wanting government subsidies (in 2011, the U.S. effectively provided \$4.4 billion in tax breaks to this industry alone, not even counting the military costs to protect their supply chains); or the Walt Disney Corporation wanting the government to extend the period of copyright so Mickey Mouse doesn't fall into the public domain. The group interest is to resolve the dilemma fairly. The self-interest for the corporation is to resolve the dilemma in its favor.

Societal Dilemma: Getting public money for projects.			
Society: Society as a whole.			
Group interest: Distribute government money fairly and maintain a level playing field.	Competing interest: Get as much money as you can for your pet projects.		
Group norm: Play by the rules.	Corresponding defection: Manipulate the rules.		
To encourage people to act in the group interest, the society implements a variety of societal pressures. Moral: It can feel wrong to take too much from the government.			

Reputational: It can look bad to take too much from the government.

Institutional: Laws determine what benefits different interests get, and prohibit any one interest from taking too much.

Security: The Congressional Record provides evidence of some of this, assuming anyone actually reads it. There are now websites that try to track political donations.

If a company can convince the government to resolve the dilemma in its favor, then its self-interest becomes the group interest. In this way, companies can defect in spirit by deliberately changing the laws so they are not defecting in practice—thereby circumventing or subverting societal pressures. So, for example, companies that make car seats, airbags, full-body scanners, compact fluorescent bulbs, car insurance, surveillance cameras, vaccines, radon detectors, and Internet filters for schools have had laws passed mandating-or at least encouraging—their use. And the healthcare industry got a law passed limiting its liability for care improperly delayed or denied.

In a sense, what corporations are doing here is reversing the principal-agent relationship. They're deliberately manipulating institutional pressures so they can directly benefit from them. In economics, changing laws to suit your desires without adding any value is known as rent-seeking.

One way to manipulate laws is through licensing requirements. Over the past several years, there have been debates in several states about licensing interior designers. It's either a necessary measure to keep charlatans out of the busi-ness, or an onerous, pro-cartel, anti-competitive system. Another way is through public opinion. The political decision not to regulate the derivatives markets is a good example: not only did it involve lobbyists and campaign contributions to get laws changed, but also public relations to convince journalists and the public that keeping the markets unregulated was a good idea.

Here's another example. Hydraulic fracturing, or fracking, is a means of extracting oil and gas from subterranean reservoirs by forcing pressurized fluid into underground rock formations. The process was originally commercialized in 1949 and in its first few decades of use was primarily used to boost production of old wells. Recent advances in horizontal drilling technology, combined with hydraulic fracturing, have enabled the tapping of heretofore inaccessible reserves, and the recent rise in oil prices has made it economically

viable. However, the procedure also poses environmental risks, most notably the risk that chemicals used in the process—including methanol, benzene, and diesel fuel—might contaminate ground water, degrade air quality, and migrate to the earth's surface; and that the resultant toxic wastewater might be impossible to decontaminate. This societal dilemma sounds a lot like the monk parakeet example from Chapter 9, and you'd expect society to figure out whether this procedure is worth it. But the companies that use the procedure—Halliburton is a big player here—lobbied successfully for a provision in the 2005 Bush administration energy bill exempting fracking from regulation by the U.S. Environmental Protection Agency under the Safe Drinking Water Act. That's the effect of reversing the principal—agent relationship: the government becomes the agent of the corporation.

One common way to do this is regulatory capture, which we'll talk about in the next chapter. Another way is to simply be unregulatable for political or economic reasons. Homebuilders have been sued repeatedly over the past decade for shoddy building practices, many of them illegal. "Too big to regulate" is how one source put it, making it impossible for homeowners to know they're getting a substandard house until it's too late. The banking industry is similarly trying very hard to be unregulatable, claiming that any regulations would damage the economy more than it would help it.

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When it comes to organizations, size is proportional to power. Legislative bodies used to rule fewer people and smaller geographic areas. In the United States, many laws that were passed by states in the 1800s became federal matters in the 1900s. There's nothing sinister about it; it's just that it now makes more sense to deal with these laws on that scale. Today, international legislative bodies have increasingly more power—simply because more things make sense to deal with on a multinational level.

This is especially true in corporations. Broadly speaking, there's a natural size of an organization based on the technology of its time. The average organization size <u>used to be smaller</u>, became larger, and now is even larger. Historically, there have only been a few very large organizations: the Roman Empire, the Catholic Church, and so on. These worked because they were organizations of organizations. That's how countries work; the U.S. has federal, state, and municipal governments. That's also how feudalism, militaries, franchise stores, and large multinational corporations work.

It still works this way, but we're better at it now. Organizational size is restricted by the limits of moving information around. Different people within, and different parts of, an organization need to communicate with each other; and the larger an organization, the harder that is to do. Most organizations are hierarchical, making communications easier. And militaries have generally been examples of the largest-sized organization a particular technological level can produce. But there's a limit where the costs of communications outweigh the value of being part of one organization. Economist Ronald Coase first pointed this out in 1937. Called "Coase's limit" or "Coase's ceiling," it's the point of diminishing returns for a company: where adding another person to an organization doesn't actually add any value to the organization. You can think of an employee inside of an organization having two parts to his job: coordinating with people inside the organization and doing actual work that makes the company money. Some people are wholly focused inside the organization: the HR department, for example. Others do the actual work, but still have internal coordination roles. There's a point where adding an additional person to the organization increases the internal coordination for everyone else to a point that's greater than the additional actual work he does. So, the company actually loses money overall by hiring him. 15 The ease of collecting, moving, compiling, analyzing, and disseminating information affects Coase's ceiling, and one of the effects of information technology is that it raises Coase's ceiling because the resultant efficiency increases. 16

Larger size has several effects on societal dilemmas:

- Large corporations can do more damage by defecting. A single company, Enron, did \$11 billion worth
 of financial damage to the U.S. economy. That much damage might previously have required ten
 smaller companies to defect. This means that as large corporations grow, fewer defectors can do even
 more damage. So society needs more security, to further reduce the amount of defection, in order to
 keep the potential damage constant.
- Individuals within a large corporation can defect from the corporation to a greater degree, for greater
 personal gain and to the greater detriment of the corporation. Nick Leeson's unauthorized trading while
 he worked for Barings Bank destroyed the entire company in 1995. Kenneth Lay, Jeffrey Skilling, and
 other senior Enron executives destroyed that company. Kweku Adoboli lost \$2.3 billion for the
 investment bank UBS in 2011.
- Large corporations have more power to deliberately manipulate societal pressures. This includes
 getting laws passed specifically to benefit them, and engaging in jurisdictional arbitrage by deliberately
 moving certain operations to certain countries in order to take advantage of local laws. <u>Different
 countries</u> have different, often conflicting, laws about price-fixing, and international companies have an
 easier time forming cartels. This sort of thing can be more local, too. Until recently, <u>Amazon.com used its</u>
 large national footprint and lack of physical stores to avoid having to charge sales tax in most states.
- Punishing a large corporation might result in so much cost or damage to society that it makes sense to
 let them get away with their wrongdoing. The ultimate expression of this is when a company is "too big to
 fail": when the government is so afraid of the secondary effects of a company going under that they will
 bail the company out in order to prevent it.¹⁷
- Individuals within large corporations can be emotionally further away from the individuals they're

affecting when they make decisions about whether to cooperate or defect. Remember that moral pressure decreases in effectiveness with emotional distance. The larger the corporation, the larger the tendency towards emotional distance.

• Larger corporations have more to lose by defecting. Their reputation is more valuable, and damage to it will have greater effects on the corporation. This serves to restrict what they're willing to do.

Large corporations can also play one societal dilemma off another. Remember our sandwich seller in the market. He's stuck in a societal dilemma with all the other sandwich sellers, and has to set his prices accordingly. In order to prevent the market's sandwich sellers from cooperating, society as a whole—as part of a larger societal dilemma—passes laws to prevent collusion and price-fixing. But a larger sandwich seller has more options. He can expand his product offering across several dimensions:

- Economies of scale. He can buy his ingredients in bulk and streamline his production processes.
- Depth. More sandwich options.
- Size. Larger or smaller sandwiches.
- Time. Breakfast sandwiches or sandwiches for midnight snacks.
- Scope. Sandwich-like things, such as hot dogs, bagels, wraps, and muffins.
- Accessories. Chips and sodas, groceries.
- Service. Sandwich subscriptions, delivery, free wi-fi to go along with the sandwiches.

All this makes it much more difficult to enforce the basic societal dilemmas of a market economy. On the face of it, as a seller diversifies, he is now stuck in multiple different societal dilemmas: one with the other sandwich sellers in the market, and another with—for example—chip sellers. But by tying the two products together, perhaps selling a sandwich and chips together, or offering a once-a-week chip subscription with the purchase of a sandwich subscription, he is able to play the two societal dilemmas off each other, taking advantage of both.

We see this with various product schemes. Whether it's Citibank selling credit cards and consumer loans and anti-theft protection plans to go with those credit cards; or Apple selling computer hardware and software; or Verizon bundling telephone, cable, and Internet; product bundles and subscription services hide prices and make it harder for customers to make buying decisions. There's also a moral hazard here. The less Citibank spends on antifraud measures, the more protection plans it can sell; the higher its credit card interest rates, the more attractive its consumer loans are.

Large corporations can also use one revenue stream to subsidize another. So a big-box retail store can temporarily lower its prices so far that it's losing money, in order to drive out competition. Or an airline can do the same with airfares in certain markets to kill an upstart competitor.

Things get even more complicated when sellers have multiple revenue streams from different sources. Apple sells iPhones and iPads to customers, sells the ability to sell customer apps to app vendors, and sells the right to sell phone contracts to phone companies. Magazines sell both subscriptions and their subscription lists. This sort of thing is taken to the extreme by companies like Facebook, which don't even charge their users for their apps at all, and make all their money selling information about those users to third parties. It turns out that offering a product or service for free is very different than offering it cheaply, and that "free" perturbs markets in ways no one fully understands. The optimal way to do business in an open-air market—offer the best products at the lowest prices—fails when there are other revenue streams available.

An additional complication arises with products and services that have high barriers to entry; it's hard for competitors to emerge. In an open-air market, if the sandwich vendors all sell their sandwiches at too-high prices, someone else can always come in and start selling cheaper sandwiches. This is much harder to do with cell phone networks, or computer operating systems, or airline tickets, because of the huge upfront costs. And industries can play the meta-game to prevent competition, as when the automobile industry bought and then dismantled cities' trolley networks, big agriculture lobbied government to impose draconian regulations on small farms, and so on.

There's one more problem with the technological corporations that doesn't really exist on the small scale of an open-air market: the risks of defection can be greater than the total value of the corporations themselves. An example will serve to explain.

<u>Chemical plants</u> are a terrorism risk. Toxins such as phosgene, chlorine, and ammonia could be dispersed in a terrorist attack against a chemical plant. And depending on whose numbers you believe, <u>hundreds of plants</u> threaten hundreds of thousands of people and some threaten millions. This isn't meant to scare you; there's a lot of debate on how realistic this sort of terrorist attack is right now.

In any case, the question remains of how best to secure chemical plants against this threat. Normally, we leave the security of something up to its owner. The basic idea is that the owner of each chemical plant best understands the risks, and is the one who loses out if security fails. Any outsider—in this case, a regulatory agency—is just going to get it wrong.

And chemical plants do have security. They have fences and guards. They have computer and network security. They have fail-safe mechanisms built into their operations. 19 There are regulations they have to follow. The problem is that might not be enough. Any rational chemical-plant owner will only secure the plant up to its value to him. That is, if the plant is worth \$100 million, it makes no sense to spend \$200 million on securing it. If the odds of it being attacked are less than 1%, it doesn't even make sense to spend \$1 million on securing it. The math is more complicated than this, because you have to factor in such things as the reputational cost of having your name splashed all over the media after an incident, but that's the basic idea.

But to society, the cost of an actual attack could be much, much greater. If a terrorist blows up a particularly toxic plant in the middle of a densely populated area, deaths could be in the tens of thousands and damage could be in the hundreds of millions. Indirect economic damage could be in the billions. The owner of the chlorine plant would pay none of these costs; to him, they are externalities borne by society as a whole.

Sure, the owner could be sued. But he's not at risk for more than the value of his company, and the outcome of a lawsuit is by no means preordained. Expensive lawyers can work wonders, courts can be fickle, and the government could step in and bail him out (as it did with airlines after 9/11). And a smart company can often protect itself by spinning off the risky asset in a subsidiary company, or selling it off completely. Mining companies do this all the time.

The result of all this is that, by leaving the security to the owner, we don't get enough of it.

In general, the person responsible for a risk trade-off will make the trade-off that is most beneficial to him. So when society designates an agent to make a risk trade-off on its behest, society has to solve the principal—agent problem and ensure that the agent makes the same trade-off that society would. We'll see how this can fail with government institutions in the next chapter; in this case, it's failing with corporations.

Think back to the sandwich sellers in the local market. Merchant Alice is one of those sandwich sellers, and a dishonest, unscrupulous one at that. She has no moral—or reputational—issues with potentially poisoning her buyers. In fact, the only thing that's standing in the way of her doing so is the law. And she's going to do the math.

She has the opportunity of making her sandwiches using some substandard but cheaper process. Maybe she's buying ingredients that aren't as clean. Whatever she's doing, it's something that saves her money but is undetectable by her customers.

If her increased profit for selling potentially poisonous sandwiches is \$10,000, and the chance of her getting caught and fined is 10%, then any fine over \$100,000 will keep her cooperating (assuming she's rational and that losing \$100,000 matters to her).

Now consider a large sandwich corporation, ALICE Foods. Because ALICE Foods sells so many more sandwiches, its increased profit from defecting is \$1,000,000. With the same 10% probability of penalty, the fine has to be over \$10,000,000 to keep it from defecting. But there's another issue. ALICE Foods only has \$5,000,000 in assets. For it, the maximum possible fine is everything the corporation has. Any penalty greater than \$5,000,000 can be treated as \$5,000,000. So ALICE Foods will rationally defect for any increased profit greater than \$500,000, regardless of what the fine is set at (again, assuming the same 10% chance of being fined and no semblance of conscience).

Think of it this way. Suppose ALICE Foods makes \$10,000,000 a year, but has a 5% chance of killing lots of people (or of encountering some other event that would bankrupt the company). Over the long run, this is a guaranteed loss-making business. But in the short term, management can expect ten years of profit. There is considerable incentive for the CEO to take the risk.

Of course, that incentive is counteracted by any laws that ascribe personal liability for those decisions. And the difficulty of doing the math means that many companies won't make these sorts of conscious decisions. But there always will be some defectors that will.

This problem occurs more frequently as the value of defecting increases with respect to the total value to the company. It's much easier for a large corporation to make many millions of dollars through breaking the law. But as long as the maximum possible penalty to the corporation is bankruptcy, there will be illegal activities that are perfectly rational to undertake as long as the probability of penalty is small enough. $\frac{20}{100}$

Any company that is too big to fail—that the government will bail out rather than let fail—is the beneficiary of a free insurance policy underwritten by taxpayers. So while a normal-sized company would evaluate both the costs and benefits of defecting, a too-big-to-fail company knows that someone else will pick up the costs. This is a moral hazard that radically changes the risk trade-off, and limits the effectiveness of institutional pressure.

Of course, I'm not saying that all corporations will make these calculations and do whatever illegal activity is under consideration. There are still both moral and reputational pressures in place that keep both individuals and corporations from defecting. But the increasing power and scale of corporations is making this kind of failure more likely. If you assume that penalties are reasonably correlated with damages—and that a company can't buy insurance against this sort of malfeasance—then as companies can do more damaging things, the penalties against doing them become less effective as security measures. If a company can adversely affect the health of tens of millions of people, or cause large-scale environmental damage, the harm can easily dwarf the total value of the company. In a nutshell, the bigger the corporation, the greater the likelihood it could unleash a massive catastrophe on society.

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