

ous problem too. Unlike welfare, the EITC does not help individuals who cannot find work at all; in reality, those are the folks who are likely to be most desperate.

When I applied to graduate school many years ago, I wrote an essay expressing my puzzlement at how a country that could put a man on the moon could still have people sleeping on the streets. Part of that problem is political will; we could take a lot of people off the streets tomorrow if we made it a national priority. But I have also come to realize that NASA had it easy. Rockets conform to the unchanging laws of physics. We know where the moon will be at a given time; we know precisely how fast a spacecraft will enter or exit the earth's orbit. If we get the equations right, the rocket will land where it is supposed to—always. Human beings are more complex than that. A recovering drug addict does not behave as predictably as a rocket in orbit. We don't have a formula for persuading a sixteen-year-old not to drop out of school. But we do have a powerful tool: We know that people seek to make themselves better off, however they may define that. Our best hope for improving the human condition is to understand why we act the way we do and then plan accordingly. Programs, organizations, and systems work better when they get the incentives right. It is like rowing downstream.

Naked Economics

CHAPTER 3

Government and the Economy: *Government is your friend (and a round of applause for all those lawyers)*

Why did I sell my Honda Civic in 1998? Two reasons: (1) It didn't have a cup holder; and (2) my wife was pregnant, and I had become fearful that our whole family would get flattened by a Chevy Suburban. I could have gotten beyond the cup holder problem. But putting a car seat in a vehicle that weighed a quarter as much as the average SUV was not an option. So we bought a Ford Explorer and became part of the problem for all of those people still driving Honda Civics.*

The point is this: My decision to buy and drive an SUV affects everyone else on the road, yet none of those people has a say in my decision. I do not have to compensate all the owners of Honda Civics for the fact that I am putting their lives slightly more at risk. Nor do I have to compensate asthmatic children who will be made worse off by the exhaust I generate as I cruise around the city getting nine miles to the gallon. And I have never mailed off a check to people in New Orleans who may someday find their houses underwater because my CO₂ emissions are melting the polar ice caps. Yet these are real costs associated with driving a less fuel-efficient car.

*When our Ford Explorer rolled over at sixty-five mph on an interstate three years later, we bought a Volvo.

My decision to buy a Ford Explorer causes what economists refer to as an externality, which means that the private costs of my behavior are different from the social costs. When my wife and I went to the Bert Weinman Ford Dealership and the salesman, Angel, asked, "What is it going to take for me to put you in this car?", we tallied up the costs of driving an Explorer rather than a Civic: more gas, more expensive insurance, higher car payments. There was nothing on our tally sheet about asthmatic children, melting polar ice caps, or pregnant women driving Hyundais. Are these costs associated with driving an Explorer? Yes. Do we have to pay them? No. Therefore, they did not figure into our decision (other than as a vague sense of guilt as we contemplated telling our environmentally conscious relatives who live in Boulder, Colorado, and flush the toilet only once a day in order to conserve water).

When an externality—the gap between the private cost and the social cost of some behavior—is large, individuals have an incentive to do things that make them better off at the expense of others. The market, left alone, will do nothing to fix this problem. In fact, the market "fails" in the sense that it encourages individuals and firms to cut corners in ways that make society worse off as a result. If this concept were really as dry as most economics textbooks make it seem, then movies like *A Civil Action* and *Erin Brockovich* would not have made millions at the box office. After all, both of these stories are about simple externalities: A large, multinational company does something to endanger the local water supply, possibly poisoning families. *There is no market solution in this case; the market is the problem.* The polluting company can produce its product more cheaply by dumping the by-products on nearby vacant land than by paying to dispose of them properly. Customers, most of whom live far away and are unaware of (or indifferent to) the pollution, will actually reward the company by buying more of its product, which will be cheaper than what can be produced by competitors that pay to dispose of their waste in a more responsible way. The only redress in these recent film examples (both based on true stories) was through a nonmarket, government-supported mechanism: the courts. And, of course, John Travolta and Julia Roberts look good doing it.

Consider a more banal example, but one that raises the ire of most city dwellers: people who don't pick up after their dogs. In a perfect world, we would all carry pooper scoopers because we derive utility from behaving responsibly. But we don't live in a perfect world. From the narrow perspective of some individual dog walkers, it's easier ("less costly" in economist speak) to ignore Fido's unsightly pile and walk blithely on. (For those who think this is a trivial example, an average of 650 people a year break bones or are hospitalized in Paris after slipping in dog waste, according to the *New York Times*.)¹ The pooper-scooper decision can be modeled like any other economic decision; a dog owner weighs the costs and benefits of behaving responsibly and then scoops or does not scoop. But who speaks for the woman running to catch the bus the next morning who makes one misstep and is suddenly having a very bad day? No one, which is why most cities have laws requiring pet owners to pick up after their animals.

Thankfully there is a broader point: One crucial role for government in a market economy is dealing with externalities—those cases in which individuals or firms engage in private behavior that has broader social consequences. I noted in Chapter 1 that all market transactions are voluntary exchanges that make the involved parties better off. That's still true, but note the word "involved" that has left me some wiggle room. The problem is that all of the individuals *affected* by a market transaction may not be sitting at the table when the deal is struck. Our neighbor Stuart, with whom we share an adjoining wall, is an avid bongo drum player. I'm sure that both he and the music shop owner were both pleased the last time he purchased a new set of bongos. (Based on the noise involved, he may have even purchased some kind of high-tech amplifier.) *But I am not happy about this transaction.*

Externalities are at the root of all kinds of policy issues, from the mundane to those that literally threaten the planet:

- *The Economist* has suggested somewhat peevishly that families traveling with small children on airplanes should be required to fly at the back of the plane so that other passengers might enjoy a "child-free zone." An editorial in the magazine noted, "Children, just like

cigarettes or mobile phones, clearly impose a negative externality on people who are near them. Anybody who has suffered a 12-hour flight with a bawling baby in the row immediately ahead or a bored youngster viciously kicking their seat from behind, will grasp this as quickly as they would love to grasp the youngster's neck. Here is a clear case of market failure: parents do not bear the full costs (indeed young babies travel free), so they are too ready to take their noisy brats with them. Where is the invisible hand when it is needed to administer a good smack?"²

- Mobile phone use is under stricter scrutiny, both in public places, such as restaurants and commuter trains, where the behavior is fabulously annoying, but also in vehicles, where it has been linked to a higher rate of accidents.
- In Chicago, Mayor Richard Daley attempted to impose a 1-cent tax on every \$2 of take-out food purchases, arguing that the "litter tax" would reimburse the city for the costs of picking up litter, much of which consists of discarded fast-food containers. The mayor's economics were sound—litter is a classic externality—but a judge ruled the ordinance unconstitutional because it was "vague and lacking in uniformity" in the way it dealt with different kinds of fast-food containers.
- Global warming will be one of the most difficult international challenges in coming years in large part because firms that emit large amounts of greenhouse gases pay only a small share of the cost of those emissions. Indeed, even the countries in which they reside do not bear the full cost of the pollution. A steel plant in Pennsylvania emits CO₂ that may one day flood Bangladesh. (Meanwhile, acid rain caused by U.S. emissions is already killing Canadian forests.) The same thing is true in all kinds of factories all around the world. Thus, any solution to global warming will have to raise the cost of emitting greenhouse gases in a way that is binding upon all of the earth's polluters—not the easiest of tasks.

It is worth noting that there can be positive externalities as well; an individual's behavior can have a positive impact on society for which he

or she is not fully compensated. My office window looks out across the Chicago River at the Wrigley Building and the Tribune Tower, two of the most beautiful buildings in a city renowned for its architecture. On a clear day, the view of the skyline, and of these two buildings in particular, is positively inspiring. But I have never paid for the utility that I get from this wonderful architecture. I don't mail a check to the Tribune Company every time I glance out the window. Or, in the realm of economic development, a business may invest in a downtrodden neighborhood in a way that attracts other kinds of investment. Yet this business is not compensated for anchoring what may become an economic revitalization, which is why local governments often offer subsidies for such investment.

Some activities have both positive and negative externalities. Cigarettes kill people who smoke them; that is old news. Responsible adults are free to smoke or not smoke as they choose. But cigarette smoke can also harm those who happen to be lingering nearby, which is why most office buildings consider smoking to be slightly less acceptable than running through the halls naked. Meanwhile, all fifty states filed suit against the tobacco industry (and subsequently accepted large settlements) on the grounds that smokers generate extra health care costs that must be borne by state governments. In other words, my taxes go to remove part of some smoker's lung. (Private insurance companies do not have this problem; they simply recoup the extra cost of insuring smokers by charging them higher premiums.)

At the same time, smokers do provide a benefit to the rest of us. They die young. According to the American Lung Association, the average smoker dies seven years earlier than the average nonsmoker, which means that smokers pay into Social Security and private pension funds for all of their working lives but then don't stick around very long to collect the accumulated benefits. Nonsmokers, on average, get to share the extra money left in the pot. The good folks at Philip Morris have even quantified this benefit for us. In 2001, they released a report on the Czech Republic (just as parliament was considering raising cigarette taxes) showing that premature deaths from smoking save the Czech government roughly \$28 million a year in pension and old-age housing bene-

fits. The net benefit of smoking to the government, including taxes and subtracting public health costs, was reckoned to be \$148 million.³

How does a market economy deal with externalities? Sometimes the government regulates the affected activity. The federal government issues thousands of pages of regulations every year on everything from groundwater contamination to poultry inspection. The states have their own regulatory structures; California, for example, has a strict set of emissions standards for automobiles. Local governments have zoning laws that forbid private property owners from impinging on their neighbors by constructing buildings that may be unsafe, inappropriate for the neighborhood, or simply ugly. The island of Nantucket allows only a few select colors of exterior paint lest irresponsible property owners use neon colors that would destroy the quaint character of the island. I live in a historic neighborhood in which every external change to our homes—from the color of new windows to the size of a flower box—must be approved by an architecture committee.

There is another approach to dealing with externalities that tends to be favored in some cases by economists: tax the offending behavior rather than banning it. I've conceded that my Ford Explorer was a menace to society. As Cornell economist Robert Frank noted in an op-ed for the *New York Times*, we are locked in an SUV arms race. "Any family can only choose the size of its own vehicle. It cannot dictate what others buy. Any family that unilaterally bought a smaller vehicle might thus put itself at risk by unilaterally disarming," he wrote.⁴ He penned those sentiments before Daimler-Chrysler announced plans to produce the Unimog, *an SUV that will weigh more than six tons, or roughly the same as a Tyrannosaurus rex or two Chevy Suburbans*. Should SUVs be banned? Should Detroit be ordered to manufacture safer, more fuel-efficient cars?

Economists, including Mr. Frank, would argue not. The primary problem with SUVs—and all vehicles, for that matter—is that they are too cheap to drive. A Daimler-Chrysler marketing executive said of the Unimog, "Even in Scottsdale, Arizona, moms will want to take it to the grocery store. It's a head-turning vehicle."⁵ The private cost of driving a Unimog to the grocery store is obviously far lower than the social cost. *So raise the private cost*. As Mr. Frank writes, "The only practical remedy,

given the undeniable fact that driving bulky, polluting vehicles causes damage to others, is to give ourselves an incentive to take this damage into account when deciding what vehicles to buy." If the real cost to society of having an Explorer on the road is 75 cents a mile instead of the 50 cents a mile that it costs the vehicle's owner to operate the vehicle, then tack on a tax that equates the two. This might be accomplished with a gas tax, or an emissions tax, or a weight tax, or some combination thereof. The result will make driving a Unimog to the grocery store a lot less attractive.

But now we have entered strange terrain. Is it appropriate to allow some drivers to pay for the privilege of driving a vehicle so bulky that it might run over a Hyundai without even spilling the sixty-four-ounce drink in the monster cup holder? Yes, for the same reason that most of us eat ice cream even though it causes heart disease. We weigh the health costs of Starbucks Almond Fudge against that divine, creamy taste and decide to have a pint every once in a while. We don't quit ice cream entirely, nor do we have it with every meal. Economics tells us that the environment requires the same kinds of trade-offs as everything else in life. We should raise the cost of driving an SUV (or any vehicle) to reflect its true social cost and then let individual drivers decide if it still makes sense to commute forty-five miles to work in a Chevy Tahoe.

Taxing behavior that generates a negative externality creates a lot of good incentives. First, it limits the behavior. If the cost of driving a Ford Explorer goes to 75 cents a mile, then there will be fewer Explorers on the road. As important, those people who are still driving them—and paying the full social freight—will be those who value driving an SUV the most, perhaps because they actually haul things or drive off-road. Second, a gas-guzzler tax raises revenue, which a ban on certain kinds of vehicles does not. That revenue might be used to pay for some of the costs of global warming (such as research into alternative energy sources, or at least building a dike around New Orleans). Or it might be used to reduce some other tax, such as the income or payroll tax, that discourages behavior we would rather encourage.

Third, a tax that falls most heavily on hulking, fuel-hungry vehicles will encourage Detroit to build more fuel-efficient cars, albeit with a car-

rot rather than a stick. If Washington arbitrarily bans vehicles that get less than eighteen miles per gallon without raising the cost of driving those vehicles, then Detroit will produce a lot of vehicles that get—no big surprise here—about eighteen miles a gallon. Not twenty, not twenty-eight, not sixty using new solar technology. On the other hand, if consumers are going to be stuck with a tax based on fuel consumption and/or the mass of the vehicle, then they will have very different preferences when they step into the showroom. The automakers will respond quickly, and the Unimog will be sent where it belongs, to some kind of museum for mutant industrial products.

Is taxing externalities a perfect solution? No, far from it. The auto example alone has a number of problems, the most obvious of which is getting the size of the tax right. Scientists are not yet in complete agreement on how quickly global warming is happening, let alone what the costs might be, or, many steps beyond that, what the real cost of driving a Unimog for a mile might be. Is the right tax \$.75, \$2.21, \$3.07? You will never get a group of scientists to agree on that, let alone the Congress of the United States. There is an equity problem, too. I have stipulated correctly that if we raise the cost of driving SUVs, then those who value them most will continue to drive them. But our measure of how much we value something is how much we are willing to pay for it—and the rich can always pay more for something than everyone else. If the cost of driving an Explorer goes to \$9 a gallon, then the people driving them might be hauling wine and cheese to beach parties on Nantucket while a contractor in Chicago who needs a truck to haul lumber and bricks can no longer afford it. Who really “values” that truck more? (Clever politicians might get around the equity issue by using a tax on gas guzzlers to offset a tax that falls heavily on the middle class, such as the payroll tax, in which case our Chicago contractor would pay more for his truck but less to the IRS.) And last, the process of finding and taxing externalities can get out of control. Every activity generates an externality at some level. Any thoughtful policy analyst knows that some individuals who wear spandex in public should be taxed, if not jailed. I live in Chicago, where hordes of pasty people, having spent the winter indoors on the couch, flock outside in skimpy clothing on the first day in which the tem-

perature rises above fifty degrees. This can be a scary experience for those forced to witness it and is certainly something that young children should never have to experience. Still, a tax on spandex is probably not practical.

I’ve wandered from my original, more important point. Anyone who tells you that markets left to their own devices will always lead to socially beneficial outcomes is talking utter nonsense. Markets alone fail to make us better off when there is a large gap between the private cost of some activity and the social cost. Reasonable people can and should debate what the appropriate remedy might be. Often it will involve government.

But let’s back up for a moment. Government does not just fix the rough edges of capitalism; it makes markets possible in the first place. You will get a lot of approving nods at a cocktail party by asserting that if government would simply get out of the way, then markets would deliver prosperity around the globe. Indeed, entire political campaigns are built around this issue. Anyone who has ever waited in line at the Department of Motor Vehicles, applied for a building permit, or tried to pay the nanny tax would agree. There is just one problem with that cocktail party sentiment: It’s wrong. Good government makes a market economy possible. Period. And bad government, or no government, dashes capitalism against the rocks, which is one reason that billions of people live in dire poverty around the globe.

To begin with, government sets the rules. Countries without functioning governments are not oases of free market prosperity. They are places in which it is expensive and difficult to conduct even the most simple business. Nigeria has one of the world’s largest reserves of oil and natural gas, yet firms trying to do business there face a problem known locally as BYOI—Bring Your Own Infrastructure.⁶ Angola is rich with oil and diamonds, but the wealth has financed over a decade of civil war, not economic prosperity. In 1999, Angola’s rulers spent \$900 million in oil revenues to purchase weapons. Never mind that one child in three dies before the age of five and life expectancy is a shocking forty-two years.⁷ These are not countries in which the market economy has failed; they are countries in which the government has failed to develop and sustain the institutions necessary to support a market economy. A recent report issued by the United Nations Development Program placed much